1998

An examination of the effects of personality and job satisfaction on multiple non-workrole organizational behaviors

Douglas Dale Molitor
Iowa State University

INFORMATION TO USERS

This manuscript has been reproduced from the microfilm master. UMI films the text directly from the original or copy submitted. Thus, some thesis and dissertation copies are in typewriter face, while others may be from any type of computer printer.

The quality of this reproduction is dependent upon the quality of the copy submitted. Broken or indistinct print, colored or poor quality illustrations and photographs, print bleedthrough, substandard margins, and improper alignment can adversely affect reproduction.

In the unlikely event that the author did not send UMI a complete manuscript and there are missing pages, these will be noted. Also, if unauthorized copyright material had to be removed, a note will indicate the deletion.

Oversize materials (e.g., maps, drawings, charts) are reproduced by sectioning the original, beginning at the upper left-hand corner and continuing from left to right in equal sections with small overlaps. Each original is also photographed in one exposure and is included in reduced form at the back of the book.

Photographs included in the original manuscript have been reproduced xerographically in this copy. Higher quality 6" x 9" black and white photographic prints are available for any photographs or illustrations appearing in this copy for an additional charge. Contact UMI directly to order.

UMI

A Bell & Howell Information Company
300 North Zeeb Road, Ann Arbor MI 48106-1346 USA
313/761-4700 800/521-0600

An examination of the effects of personality and job satisfaction on multiple non-workrole organizational behaviors

by

Douglas Dale Molitor

A dissertation submitted to the graduate faculty

in partial fulfillment of the requirements for the degree of

DOCTOR OF PHILOSOPHY

Major: Psychology

Major Professor: Kathy A. Hanisch

Iowa State University

Ames, Iowa

1998

Graduate College
Iowa State University

This is to certify that the Doctoral dissertation of

Douglas Dale Molitor

has met the dissertation requirements of Iowa State University

Signature was redacted for privacy.

Major Professor

Signature was redacted for privacy.

For the Major Program

Signature was redacted for privacy.

For the Graduate College

TABLE OF CONTENTS

ABSTRACT

This study examined the multiple relationships between job satisfaction, personality, and non-workrole behaviors. Non-work role behaviors are defined here as groups of positive and negative behaviors that influence organizational effectiveness but are not part of a formal job description or controlled by an organization's reward/performance evaluation system. In recent years, both job satisfaction and personality have received renewed research attention examining how they contribute to the explanation and prediction of traditional organizational criteria such as job performance and training success. This study used the five-factor model of personality (Digman, 1990), job satisfaction, and positive and negative affect to explain employees' non-workrole behaviors. Using a self-report survey, data were collected from 313 employees in the health care industry. Two stage structural equation modeling was used to compare different theoretical models evaluating the contribution of job satisfaction, positive and negative affect, and alternate conceptualizations of personality to the prediction of non-workrole behaviors. The results suggest that job satisfaction, affective state, and personality contribute uniquely to the prediction of non-workrole behaviors. The results also suggest that criterion-related conceptualizations of personality are more successful in the prediction of non-workrole behaviors than more general conceptualizations of personality. In addition to these findings, support is also provided for the congruent measurement of general attitudes and general behaviors (i.e., behavioral families). Theoretical and practical implications are discussed.

CHAPTER 1: INTRODUCTION

Industrial and organizational (I/O) psychology is largely occupied by the task of determining how differences between employees' attributes affect behavior at work. The complexity of human behavior makes this an extremely difficult task. Employees can differ on many dimensions; each dimension having different effects on their behavior. Common dimensions where differences exist include intelligence, work attitudes, and personality and they all have received significant research attention. These areas of research have, however, produced decidedly different results.

The research on intelligence and cognitive ability has been highly successful. Few would argue with the conclusion that cognitive ability is probably the single best variable available if one is attempting to predict an applicant's future performance behavior. For example, in a large study involving military personnel, validity coefficients for general cognitive ability predicting general soldiering and technical proficiency were reported to be approximately .65 (McHenry, Hough, Toquam, Hanson, & Ashworth, 1990). Cognitive ability has also been shown to be a valid predictor of employee performance across nearly all jobs and situations (Hunter, 1986; Schmidt & Hunter, 1981).

Research on the usefulness of attitudes and personality in predicting relevant employee behavior has not produced the same level of success as cognitive ability. Although job satisfaction is probably the most commonly investigated work-related attitude and has been researched extensively (see Cranny, Smith, & Stone, 1992), it has produced little empirical evidence showing a relation to employee performance (Vroom, 1964; Iaffaldano & Muchinsky, 1985; Podsakoff & Williams, 1986). Research on the relation between job satisfaction and individual withdrawal behaviors such as absenteeism or turnover, has produced slightly better, yet still moderate results (Fisher & Locke, 1992). Although job satisfaction remains a popular topic of research, there are those who have questioned the usefulness of the job satisfaction construct (Salancik & Pfeffer, 1977; 1978).

Like job satisfaction, the criterion-related conclusions offered from personality research have also been less than impressive. In fact, they have generally been described as disappointing (Ghiselli & Barthol, 1953; Guion & Gottier, 1965). A lack of predictive success and disagreement among researchers regarding the definition and conceptualization of personality mainly led to its abandonment as a plausible explanatory variable in I/O psychology.

Recently, however, job satisfaction (Cranny et al., 1992; Hulin, 1991) and personality (Hogan, 1991; Schneider & Hough, 1995) have once again begun to receive attention from I/O psychologists. Conceptual and methodological improvements in job satisfaction research have led to new hope in understanding its usefulness (Guion, 1992a). In fact, Roznowski and Hulin (1992) suggest that job satisfaction is likely the most important variable in predicting employee behavior *after* individuals have been hired (cognitive ability would be considered the best predictor *prior* to organizational entry). The changes in job satisfaction research have focused on the conceptualization and measurement of multiple behavioral criteria. In the past, most job satisfaction research attempted to use employees' overall attitude toward a job to predict one or two specific behaviors such as output or absenteeism. Looking at such a narrow band of the wide spectrum of behavioral options available to employees, has been argued to have resulted in the relatively poor behavioral prediction using overall attitudes (Hanisch, 1995a; Hulin, 1991).

Personality research has also experienced somewhat of a revival in organizational research (Katzell, 1994). Much of the renewed interest comes from the popularity of the five-factor model of personality (also referred to as the "Big Five") that represents the most basic dimensions of personality. Studies examining personality in organizational settings have demonstrated that elements of the five-factor model provide incremental validity in the prediction of employee performance beyond what is currently possible using tests of knowledge, skills, or abilities alone (Schneider & Hough, 1995; Hogan, 1991; Barrick &

Mount, 1991; Rosse, Miller, & Barnes, 1991; Tett, Jackson, & Rothstein, 1991; Barrick & Mount, 1993).

This study examined the contributions of job satisfaction, affect, and personality to the explanation of the general behavioral constructs of organizational withdrawal and organizational citizenship. Briefly, organizational withdrawal refers to behaviors employees engage in to remove themselves from their workroles or the job itself (Hanisch, 1995a). Organizational citizenship behaviors (OCB) refer to positive behaviors employees engage in at work that are not part of their job but contribute to the organization's effectiveness. Together, these two types of behavior can be thought to compose a single, larger group of positive and negative behaviors to be referred to here as non-workrole behaviors. Non-workrole behaviors then are defined as those employee behaviors that are not part of a job description and are not necessarily governed by an organization's reward system or performance evaluations. Examples of these types of behaviors include making frequent trips to the water fountain or restroom, gossiping with co-workers, leaving work early, helping new employees, or making suggestions on ways to improve things at work.

The following literature review provides information regarding research relevant to job satisfaction, affect, personality, and non-workrole behaviors as they are used in this study. First, theoretical and conceptual issues relating to the measurement of attitudes and behaviors at work are addressed. This section includes job satisfaction and its relation to organizational withdrawal and organizational citizenship. The next section will introduce personality and a brief history of its use in I/O psychology. The discussion of personality also involves the consideration of positive and negative affect as constructs that are similar, yet distinct from personality. Past research documenting the relations between personality, affect, job satisfaction, and employees' non-workrole behaviors are also described. Finally, the section concludes with hypotheses about expected results as well as the theoretical and practical contributions of the current study.

CHAPTER 2: LITERATURE REVIEW OF ATTITUDES AND BEHAVIORS AT WORK

Given the long history of job satisfaction research, it is difficult to bring something novel to its study. Job satisfaction is certainly one of the most thoroughly researched topics in I/O psychology. In 1976, Locke estimated that over 3,000 articles had been written on the subject, and researchers have continued to produce studies over the last 20 years. Researchers have examined its relation to a plethora of organizational variables including, for example, motivation, productivity, commitment, absenteeism, and quitting (see Locke, 1976 for a review). Because of its assumed importance, researchers have vigorously studied job satisfaction in an attempt to determine both its causes and its consequences. This research has produced many different theories of job satisfaction. There is, however, disagreement among researchers regarding which theory is best.

Despite the lack of agreement about which particular theory is best, the most common theories of job satisfaction are based on the employee's expectations or values and how well those expectations or values are being fulfilled. This provides for some general agreement among job satisfaction researchers regarding what the construct of job satisfaction. Cranny et al. (1992) state that job satisfaction "is an affective (that is, emotional) reaction to a job that results from the incumbent's comparison of actual outcomes with those that are desired (expected, deserved, and so on)" (p. 1). In other words, job satisfaction is an emotional state (or attitude) that results from an employee's evaluation of the degree to which his or her expectations are being met.

Job satisfaction has generally been conceptualized as a single general construct. Job satisfaction research has, however, frequently addressed how job satisfaction is related to multiple facets of the job. Smith, Kendall, and Hulin (1969), for example, have demonstrated that job satisfaction can be conceptualized as a general construct that is composed of five distinct facets. These facets are satisfaction with work, satisfaction with pay and benefits,

satisfaction with co-workers, satisfaction with supervision, and satisfaction with promotion. Weiss, Dawis, England, and Lofquist (1967) also have conceptualized job satisfaction as a multi-faceted construct. Their job satisfaction scale measures 20 facets of work including working conditions, independence, technical-supervision, human relations-supervision, and others.

Beyond the question of what causes job satisfaction, the most frequently asked questions concern the consequences of job satisfaction and how behaviors in organizations are affected by dissatisfied employees. To answer these and other questions, thousands of studies have been conducted examining the correlates and consequences of job satisfaction. The most popular behavioral criteria used in job satisfaction research are employee performance and attendance/turnover variables (Locke, 1976).

Establishing the relationship between job satisfaction and performance has been especially troublesome for researchers throughout the history of its study. Although it is a commonly held belief among people in general that employees who are satisfied with their jobs will perform better than employees who are not satisfied, it has yet to be adequately demonstrated through empirical research. Brayfield and Crockett (1955) have been credited with calling researchers' attention to the weak associations between job satisfaction and performance (Katzell, Thompson, & Guzzo, 1992). Twenty-one years later, Locke (1976) described the literature as consistently providing "negligible" relationships between job satisfaction and productivity. More recent investigations have found similar results. For example, a meta-analytic review by Iaffaldano and Muchinsky (1985) produced an average correlation between job satisfaction and performance of .14. In another review, Podsakoff and Williams (1986) reported a similar correlation between job satisfaction and performance of .17. These correlations suggest that it is quite obvious that the relationship between job satisfaction and performance is not as simple or direct as is commonly believed.

Although work performance has not proven to be a good criterion for establishing the effects of job satisfaction, there has been somewhat greater success in demonstrating the negative relationships between job satisfaction and employee behaviors such as absenteeism and turnover. Even though the correlations are still not very large, job satisfaction has been shown to affect employees' decisions regarding behavior such as attendance, leaving an organization, and retiring (Hackett, 1989; Hanisch & Hulin, 1990; Tett & Meyer, 1993). Hackett reported correlations between general job satisfaction and absence to be approximately -.20 ($\underline{r}$ = -.15 with frequency of absence and $\underline{r}$ = -.23 for duration of absence). Tett and Meyer reported a correlation of -.25 between general job satisfaction and turnover. Hanisch and Hulin reported correlations between work satisfaction and desire to retire to be approximately - 24.

While these correlations are higher than those reported between job satisfaction and performance, they are still moderate at best. The problem of a low attitude-behavior correlation is not unique to job satisfaction research. Social psychologists have been aware of the "attitude-behavior" problem longer than I/O psychologists and have exerted a significant research effort in an attempt to understand it.

Attitudes and Behaviors

The attitude-behavior problem has been around almost as long as psychologists have been measuring attitudes (Petty & Cocioppo, 1981). As early as the 1930's, social psychologists had noted attitude-behavior inconsistencies between participants' responses on attitude surveys and their actual recorded behaviors (e.g., Corey, 1937; LaPiere, 1934). The lack of expected correlation between attitudes and behaviors continued and eventually caused researchers to question the value of the entire attitude concept. Wicker (1969) reviewed over 30 articles on the attitude-behavior relationship and concluded that "taken as a whole, these studies suggest that it is considerably more likely that attitudes will be unrelated or only slightly related to overt behaviors than that attitudes will be closely related to actions"

(p. 65). Based on this lack of successful behavior prediction, Wicker eventually called to "abandon the attitude concept" (1971, p. 29). Fortunately, the attitude concept was not abandoned, and researchers instead continued working to better understand the relationships between attitudes and behaviors. Since Wicker's call to abandon the attitude concept, some of the most influential work in the area of attitudes and behaviors was conducted by Fishbein and Ajzen (1974; 1975) which resulted in the theory of reasoned action and its later incarnation—the theory of planned behavior (Ajzen, 1991).

Briefly, both the theory of reasoned action and the theory of planned behavior suggest that behavior is determined by an individual's intention to perform a particular behavior. They both state that the intention to perform a behavior is determined by a combination of the individual's attitude toward performing a behavior and his or her subjective social norms regarding the particular behavior. The distinctions between the two theories are not important to this study. The following discussion includes the elements that are common to both theories and are important to understanding the attitude-behavior relationship.

One of the most important tenets and necessary conditions for both the theory of reasoned action and the theory of planned behavior is the issue of correspondence between attitudes and behaviors. That is, the level of specificity or complexity at which attitudes and behaviors are defined and measured must be equal. This is what Ajzen and Fishbein (1977) refer to as the correspondence between attitudinal and behavioral entities. Much of the existing attitude research fails to match the level of specificity between the attitude and the behavior to be predicted. This incongruence makes prediction of behaviors difficult and results in low correlations (Hulin, 1991). For example, Weigel, Vernon, and Tognacci (1974) measured individual's general attitudes regarding the importance of a clean environment and then recorded their behaviors when given the opportunity to participate in specific volunteer activities with the Sierra Club. The correlation between participants' general attitude toward the environment and specific volunteer behaviors such as writing a letter to an elected official

or serving on a Club committee was, as the authors expected, quite small (r = .06). As a comparison, Weigel et al. also used a high specificity measure of the participants' attitudes regarding specific attitude objects such as the Sierra Club and participating in its activities. The use of these corresponding measures resulted in a much stronger relationship between the specific attitudes and behaviors (r = .68). These results illustrate the importance of having congruent measures.

Davidson and Jaccard (1979) also conducted a study demonstrating that stronger relationships than those reported previously result from the corresponding measurement of attitudes and behaviors. Their study measured women's attitudes, in varying degrees of specificity, toward the use of oral contraception. For example, at the general attitude level, participants were asked about their attitude toward birth control. At the specific level, participants were asked about their attitudes toward using birth control pills during the next two years. These attitudes were then correlated with reported contraceptive use. The reported correlation between oral contraceptive use and the general attitude toward birth control was .08, whereas it was .57 between oral contraceptive use and the specific attitude toward using birth control pills over the next two years.

Evidence from the Weigel et al. (1974) and Davidson and Jaccard (1979) studies demonstrate the importance of congruence between measures of attitudes and behaviors. All of the evidence, however, focused on matching *specific* measures of attitudes with *specific* measures of behaviors. There was no attention being given to the other side of the correspondence issue. That is, correspondence between measures of *general* attitudes and *general* behaviors. This is a basic idea from attitude theory that was originally offered by Thurstone (1931) and reiterated by Doob (1947) several years later. By focusing exclusively on specific attitudes and specific behaviors, the tenet of correspondence was not being fully utilized. Much more could be gained by taking the concept of correspondence the opposite direction and matching attitudes and behaviors at a general level as opposed to a specific

level. Using specific attitudes and specific behaviors is sufficient when the goal is simple, empirical prediction. However, the prediction of specific behaviors from specific attitudes does not necessarily help in the *understanding* of behaviors. Hanisch (1995a) and Hulin (1991) suggest that using general constructs and general behaviors will help provide an understanding of the behaviors beyond that achieved by examining specific constructs and specific behaviors. That is, to better understand behavior, it is beneficial to look beyond specific instances and examine the broader theoretical underpinnings of groups of behaviors.

General Behavioral Classes

The idea of focusing on general attitudes and general behaviors has existed for some time. In an early article on the measurement of attitudes, Thurstone (1931) stated that it is not the specific behaviors that should be of concern as much as the characteristics or features of the behaviors (i.e., the meaning or function of the behaviors). He points out that two people can have attitudes that are equally favorable toward an object, yet their overt action toward the object can take quite different forms. In other words, more attention should be given to the overall favorableness or unfavorableness of the behaviors toward a given object instead of one specific form of behavior.

Doob (1947) also argued that single, specific behaviors are seldom predicted from the sole knowledge of an individual's general attitude toward an object. Conceptually, this means that researchers need to focus on a broad spectrum of behaviors that are expected to be related. Methodologically, this means creating behavioral measures that assess groups of behaviors that have a similar function or meaning to the individual. These general groups (i.e., families or classes) of behaviors should be the intended targets for prediction using measures of general attitudes. While predicting specific behaviors (e.g., predicting who will be absent and when) is useful to an organization, given the complexity of human behavior, predicting specific behaviors from general attitudes is an unrealistic goal. It should, however, be more likely that a behavioral *family* or *class* is predictable even if its specific

manifestation is not. Lubinski and Thompson (1986) discuss the basic units of human behavior and communicate a similar message about studying a broader level of behavior than is typically examined. They suggest that behavioral classes composed of more specific fundamental units should be the behavioral constructs of interest throughout psychology. They state that aggregates of individual behaviors are entities in their own right and can be used as units of analysis. Although the individual behaviors composing a behavioral family may take different forms, they are serving similar functions and likely have similar antecedents.

Lubinski and Thompson illustrate their point by comparing the logic of behavioral aggregation in psychology with an example from chemistry. They state the following:

> Focusing our attention on prediction response classes (as opposed to the constituent components of response classes) is consistent with the manner in which other sciences operate. A chemist, for example, is able to predict with great certainty the reaction produced by mixing various solutions, provided their respective volumes are known beforehand. If, however, a specific molecule in a solution was radioactively labeled before it was mixed, and if a chemist were asked if this particular (molecular) entity will be involved in the (molar) reaction, our chemist's reply would be much less precise (i.e., the molar phenomena is quite predictable but the specific molecular constituents are indeterminate). (1986, pp. 308-309)

The above analogy relates to the study of work attitudes and employee behaviors because it illustrates how organizational as well as other researchers are too often only concerned with a single molecular behavior such as absenteeism or quitting. They fail to consider the entire "solution" of related behaviors that may be serving a similar function representing an underlying trait or attitude for the individual.

The principle of aggregation has also been clearly demonstrated by Rushton, Brainerd, and Pressly (1983). Rushton et al., using examples of studies from several

subdisciplines of psychology, demonstrated how relationships can be established by aggregating the variables involved. They suggested that previous studies had not successfully demonstrated relationships because of inadequate, single-variable measurement of the constructs involved. They point out that the sum of several measurements of a given topic will be a more stable and accurate representation of an underlying construct than any single measure. This occurs because combining several measures reduces the effects of measurement error. This results in random error effects being averaged out, while the effects of accurate measurement continue to accumulate.

Using families of aggregated behaviors as criteria is consistent with Ajzen's theory of planned behavior as well as others that preceded it (e.g., Doob, 1947; Fishbein & Ajzen, 1974; Thurstone, 1931). The principle of aggregation is certainly not new, and its usefulness has been demonstrated in several areas such as developmental, personality, and social psychology (See Rushton et al., 1983). It simply has not been utilized to the extent that it should be. Behavior prediction in industrial and organizational psychology has for too long focused on individual, isolated behavior. The idea of aggregating responses and considering broad behavioral families should more frequently be applied to studies of behavior at work to be sure that the entire spectrum of employee responses are being considered. By doing so, researchers can better understand the influences of general work attitudes such as job satisfaction on behavior at work.

Job Satisfaction and Behaviors at Work

As previously discussed, job satisfaction has been described as less than impressive in its ability to predict employees' single behaviors. A likely reason for its poor performance has been an inappropriate focus on specific behaviors such as output, performance, absenteeism, or turnover given its status as a general attitude.

Hulin (1991) and others (e.g., Fisher & Locke, 1992; Hanisch, 1995a; Hanisch & Hulin, 1990; 1991; Hanisch, Hulin, & Roznowski, in press, Roznowski & Hulin 1992) have

made strong arguments regarding how job satisfaction research needs to be changed to better demonstrate how it affects employee behavior. The issue is related to the congruence between the level of specificity and complexity at which both job satisfaction and behaviors are measured. For example, job satisfaction-withdrawal studies in the past have tended to focus on how an employee's general feelings about his or her job is related to specific isolated behaviors such as absenteeism or turnover. As was discussed above, trying to predict specific behaviors from general attitudes is inappropriate and therefore, the results are not useful given the incongruent assessment of attitudes and behaviors.

The following analogy helps to clarify the necessity of using corresponding levels of attitude and behavior measurement. Suppose scientists discovered life on another planet and an effort was initiated to try to communicate with them. Based on existing extraterrestrial communication theories, it was assumed that the new life forms were aware of general radio technology. Therefore, the scientists on earth sent messages to the new life forms using all available forms of radio waves: AM, FM, short-wave, microwave, etc. However, when the time came to listen for a reply, the scientists only monitored two frequencies on only one type of radio receiver. When no response was received on these two monitored channels, it was assumed that the new life forms did not have the ability to communicate via radio waves. This finding caused the scientists to abandon the theories that led them to believe that the aliens were aware of radio technology.

The scientists' levels of specificity in sending and receiving radio transmissions were incongruent. When sending their message, they used *general* radio technology. When they were listening for a response, they used *specific* radio technology. This is similar to psychologists who assess employees' *general* attitudes about aspects of their jobs, but only record one or two of the many possible *specific* behavioral responses.

The present study incorporated the concept of broad behavioral classes by examining a wide variety of behaviors and their relation to different levels of job satisfaction or

dissatisfaction. Of particular interest to this study are the positive and negative behaviors that are not normally associated with traditional measures of performance (i.e., non-workrole behaviors) in organizations.

Non-Workrole Behavior

Non-workrole behavior is a term that is used here to refer to employee behaviors that have generally been studied separately under different names such as prosocial organizational behavior (Brief & Motowidlo, 1986), OCB (Smith, Organ, & Near, 1983), organizational withdrawal (Hanisch, 1995b; Hanisch & Hulin, 1990), and noncompliant behaviors (Puffer, 1987). These concepts are similar because they focus on behaviors that are not part of employees' traditional workroles. Therefore, they are each included as criteria in the study presented here.

Withdrawal Research. To an even greater degree than other areas of psychological research, the history of withdrawal research shows that most investigators have focused mainly on a few high-profile behaviors such as absenteeism and turnover. Absenteeism and turnover are of importance to organizational managers because of the extreme costs associated with them. Steers and Rhodes (1978) claimed that absenteeism costs organizations billions of dollars each year. Turnover can causes similar costs because of the expenses associated with continually recruiting, selecting, and training new employees (Dipboye, Smith, & Howell, 1994). Because of this financial importance, the question of when, how, and why people withdraw from their jobs has been the subject of much research and has produced several theoretical models. For example, Steers and Rhodes (1978), Mobley, Horner, and Hollingsworth (1978), March and Simon (1958), and Price (1977) all offer models of turnover or absenteeism. These examples do not exhaust the list of proposed models, but they do represent those theories that have received most of the attention in the withdrawal literature.

Although each of the models is different, most of these models take a similar approach to mapping out the particular influences on employees' decision making processes regarding absenteeism and turnover. The common theme among them is that each includes some type of evaluation of the employees' inputs versus outputs to arrive at a decision regarding being absent or not continuing membership in the organization. Hulin, Roznowski, and Hachiya (1985) combined many of the ideas from previous withdrawal models and provided a comprehensive theoretical model that addresses both attitude formation and withdrawal behavior. The Hulin et al. model is consistent with theories regarding attitude formation proposed by March and Simon (1958), Smith et al. (1969), and Thibaut and Kelley (1959). It is also in agreement with theoretical propositions regarding the relationship between attitudes and behaviors put forward by Ajzen (1988, 1991), Fishbein and Ajzen (1974, 1975), and Triandis (1971).

The ideas presented by Hulin et al. (1985) are similarly presented by Hulin (1991) in a slightly modified form from the original model (See Figure 1). He details its development and relation to other attitude-behavior theories of withdrawal that have preceded it (e.g., Thibaut & Kelley, 1959; March & Simon, 1958; Smith et al. 1969; Rosse & Miller, 1984; Hulin et al., 1985). The model suggests that job satisfaction results from employees' evaluation of their workrole inputs and outcomes. The evaluation of workrole inputs and outcomes is influenced by employees' frames of reference and personal utilities of direct and opportunity costs of workrole membership. Job satisfaction will only result if the evaluation of workrole outcomes exceeds the perceived workrole costs.

Job dissatisfaction is assumed to be an unpleasant state that prompts employees to take action to alleviate the discrepancy between workrole inputs and outcomes. Employees have many behaviors from which to choose to either increase workrole outcomes or decrease workrole inputs. Hulin et al. (1985) suggest that these behaviors make up four categories. The first, labeled as specific attempts to increase job outcomes, includes behaviors such as

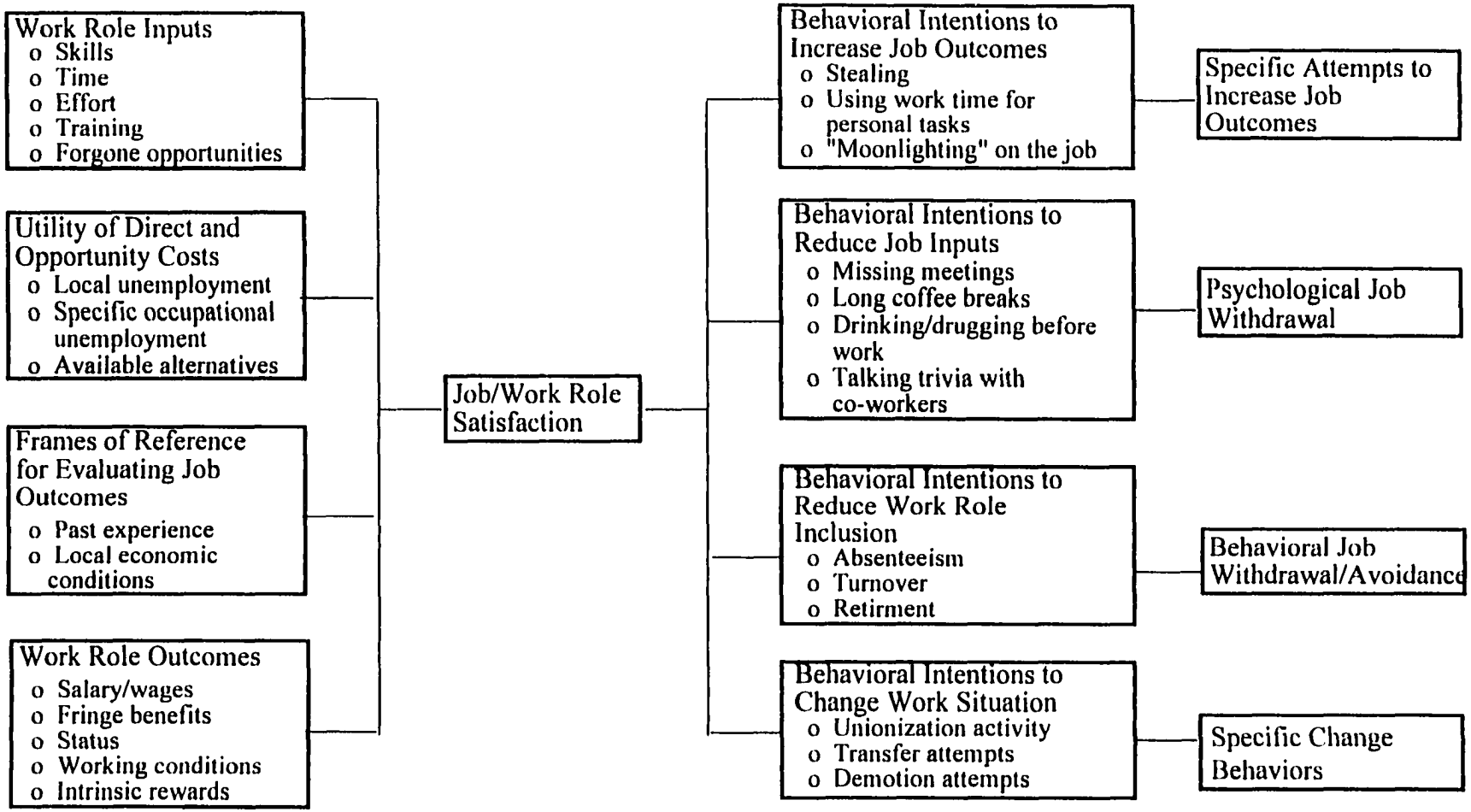


Figure 1. Hulin's theoretical model of adaptive responses (Hulin, 1991).

stealing or using work time for personal tasks. The second category is labeled psychological withdrawal and consists of behaviors such as taking long breaks and talking trivia with co-workers. The third category is called behavioral job withdrawal/avoidance. It consists of more drastic behaviors such as absenteeism, turnover, and retirement. Finally, the fourth category--specific change behaviors--refers to those behaviors that are meant to change the work situation. Examples here include unionization attempts or talking to the boss about changing the work itself.

Hanisch (1995a) has further developed the withdrawal aspects of Hulin's (1991) model (i.e., categories two and three from above) and has identified and defined a broad behavioral construct labeled organizational withdrawal. Employees use organizational withdrawal behaviors to avoid their work or remove themselves from their jobs entirely.

Organizational withdrawal is defined by Hanisch (1995b) as "a general construct composed of a variety of acts, or surrogate intentions, that reflect both the negativity of the precipitating job attitudes and the target of these negative job attitudes." In other words, it is a group of behaviors that is meant to encompass the many manifestations of withdrawal that can result from negative work attitudes such as job dissatisfaction. By doing so, it adheres to the recommendations cited above regarding aggregation (Rushton et al., 1983) and congruence in the measurement of both attitudes and behaviors (Doob, 1947; Fishbein & Ajzen, 1974; Thurstone, 1931).

The general construct of organizational withdrawal has been shown empirically using factor analysis and causal modeling to consist of two distinct components: Work withdrawal and job withdrawal (Hanisch, 1995a; Hanisch & Hulin, 1990, 1991). Work withdrawal refers to those behaviors that dissatisfied employees engage in to avoid or minimize the time spent on aspects of their work while maintaining organizational and workrole membership (e.g., being late for work, missing meetings, daydreaming). Job withdrawal refers to those efforts

an employee engages in to remove himself or herself from an organization entirely (e.g., turnover, retirement).

The distinction between work and job withdrawal is important because, as cited by Hulin (1991), Atkinson and Birch (1970) suggest that individuals will select behaviors to maximize the utility of performing the behavior. Studies discussed by Hulin have shown that employees discriminate among sources of dissatisfaction and choose behaviors that are likely to help alleviate its discomfort. For example, Getman, Goldberg, and Herman (1976) reported that satisfaction with elements of the job most likely to be changed by unionization (i.e., pay and supervision) were strongly related to the probability of voting for unionization (an adaptive behavior). Schriesheim (1978) reported a similar finding, stating the correlation between pro-union voting and economic factors of the job to be -.76. The reported correlation between union voting and non-economic factors of the job was -.38.

If employees are selecting withdrawal behaviors that they see as being most helpful in alleviating their dissatisfaction, it becomes very important to measure a broad construct that will represent as many of the adaptive options as possible, not just absenteeism or turnover. This is because, as Roznowski and Hulin (1992) state, the employee may mix and match different behaviors from a single behavioral family until the desired outcome is achieved.

The employees' choices regarding which withdrawal behaviors to enact are governed by two broad influences known as response *valence* and response *threshold* (Hanisch, 1995a). Influences on response valences refers to those influences governing the positive or negative value of the behavioral responses. For example, past experiences with the effectiveness of calling in sick to reduce the discomfort of dissatisfaction will influence the decision of whether to call in sick again. Influences on response thresholds refers to influences that affect the probability of performing a behavior. For example, a poor local economy would influence an employee's decision to quit his or her job. Because of the

difficulty of finding a new job, the poor economy would increase the threshold and thereby decrease the likelihood of choosing that behavior to reduce dissatisfaction.

Theoretically, as these threshold and valence influences change, employees will switch between behaviors depending on which are most appropriate for their current adaptation needs. The proposed switching among different withdrawal behaviors further necessitates the use of broad behavioral measurement. Studying only one behavior such as absenteeism may result in null results simply because the response threshold for that behavior may be too great in the particular organization being studied. If the organization has a strict absence policy, the employee may choose to be late to work instead because the consequences are less than being absent. In this example, being late would have a lower response threshold than being absent.

It is because of this potential switching between available responses and differences in response valences and thresholds that individual behaviors such as absenteeism or tardiness have been and always will be difficult to predict from general attitudes. However, predictions of a more general behavioral construct such as organizational withdrawal will be considerably more successful. Roznowski and Hanisch (1990) demonstrated this idea in a study examining job satisfaction and behavioral composites consisting of several adaptive behaviors. By systematically increasing levels of generality in the measurement of withdrawal behavior (including withdrawal intentions and withdrawal cognitions), they reported increased correlations between measures of job satisfaction and organizational withdrawal. For example, the correlation reported between the JDI satisfaction with work subscale and a composite of withdrawal behaviors was -.36. The work satisfaction subscale was also correlated with a more general composite that included withdrawal behaviors as well as withdrawal cognitions and withdrawal intentions. The correlation with this more general measure of withdrawal was -.53. Similar results were reported for each of the satisfaction subscales used in the study.

Based on the evidence presented above, a strong case can be made for the use of organizational withdrawal as a general behavioral construct. In this particular study, the form of organizational withdrawal specifically defined as work withdrawal is examined. Given the conceptualization of non-workrole behaviors in this study as behaviors that occur at work, work withdrawal is appropriate to represent negative non-workrole behaviors because they consist of negative behaviors that employees engage in to remove themselves from work while maintaining membership in the organization. The research reviewed above suggests that examining the multiple responses that compose work withdrawal instead of one or two specific behaviors that have traditionally been the subject of withdrawal research will provide a better understanding of employees' responses to job dissatisfaction.

Positive Non-Workrole Behaviors. Positive non-workrole behaviors include those behaviors that are labeled in the literature as Organizational Citizenship Behaviors (OCB) and Prosocial Organizational Behaviors (POB). Organ and Konovsky (1989) define OCBs as "constructive or cooperative gestures that are neither mandatory in-role behaviors nor directly or contractually compensated by formal reward systems" (p. 157). OCB and POB are important because they represent employee behaviors such as helping, cooperating, and volunteering that, accumulated over time, are presumed to be important to organizational effectiveness.

POB has been presented in the literature as being a more general concept than OCB. Brief and Motowidlo (1986) offered the following definition:

> Prosocial organizational behavior is behavior which is (a) performed by a member of an organization, (b) directed toward an individual, group, or organization with whom he or she interacts while carrying out his or her organizational role, and (c) performed with the intention of promoting the welfare of the individual, group, or organization toward which it is directed (p. 711).

From the preceding definition, it can be seen that POBs include more than just non-workrole behaviors. Many of the behaviors included within the above definition are legitimate forms of job performance. Brief and Motowidlo (1986) identified 13 theoretical (i.e., not empirically determined) dimensions upon which POBs can occur (see Table 1). Although they provide a useful taxonomy for positive behaviors at work, many of Brief and Motowidlo's categories go beyond the non-workrole behaviors that are the focus of this study. Alternatively, OCB provides a conceptualization of positive organizational behavior that is more precisely related to the non-workrole behaviors to be studied here. Organ (1988) defines OCB as the following, "individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization" (p. 4). Given this definition, OCB is recognized to be a more specific subset of the larger POB concept.

OCB has been shown via factor analysis to be divisible into more than one factor (Organ & Konovsky, 1989; Podsakoff, MacKenzie, Moorman, & Fetter, 1989; Smith et al., 1983). Smith et al. (1983) claimed that there are two factors including Altruism and Generalized Compliance. Altruism consists of personal prosocial/helping behaviors. Generalized Compliance refers to impersonal, conscientiousness behaviors. Organ and

Table 1. Brief and Motowidlo's (1986) 13 categories of prosocial organizational behaviors.

Assisting co-workers with job-related matters.
Assisting co-workers with personal matters.
Showing leniency in personnel decisions.
Providing services or products to consumers in organizationally consistent ways.
Providing services or products to consumers in organizationally inconsistent ways.
Helping consumers with personal matters unrelated to organizational services or products.
Complying with organizational values, policies, and regulations.
Suggesting procedural, administrative, or organizational improvements.
Objecting to improper directives, procedures, or policies.
Putting forth extra effort on the job.
Volunteering for additional assignments.
Staying with the organization despite temporary hardships.
Representing the organization favorably to outsiders.

Konovsky (1989) conducted a factor analysis of the 16-item Smith et al. (1983) measure of OCB and determined that the Generalized Compliance factor could be further divided into two separate factors. They claimed that one part of the Compliance factor focused on the conscientious use of time. The second factor consisted of three items involving negative behaviors that the employee does not do.

Podsakoff et al. (1989) claimed that OCB consists of five separate factors. They included Altruism and Generalized Compliance as suggested by Smith et al. (1983), but they also included factors labeled Sportsmanship, Courtesy, and Civic Virtue. Sportsmanship is described as the acceptance of minor inconveniences. Courtesy is offering advice and respecting other's needs. Civic Virtue represents responsibility and involvement in issues that affect the entire organization.

Although other researchers have divided OCB into multiple factors, the conceptualization of OCB as a general factor represents a conceptualizations of OCB that is consistent with the goal of evaluating a general construct of positive organizational behaviors. Therefore, no effort will be made to divide OCB into multiple forms in this study.

The past research on OCB relevant to this study consists mainly of research examining job satisfaction and personality as causes of OCB. Unlike the organizational withdrawal research cited above, OCB research has, since its conception, had a multi-behavioral focus. That is, unlike withdrawal, it does not have the one or two high-profile behaviors (i.e., absenteeism, turnover) that have driven the research. In fact, in his 1988 book on OCB, Organ (1988) states that a single occurrence of a citizenship behavior is likely to be trivial. Taken in the aggregate, however, the behaviors can have a significant effect on organizational performance. This same idea has only recently been proposed in the area of withdrawal research (Hanisch & Hulin, 1990; Fisher & Locke, 1992).

Recently, Fisher and Locke (1992) addressed the relationships between job satisfaction and work behavior and provided a review of studies investigating OCB. They

concluded that job satisfaction is often a significant predictor of aggregated positive behaviors. In their review of five studies (both published and unpublished) they report correlations ranging from .21 to .54 between OCB and general job satisfaction. Other studies (e.g. Bateman & Organ, 1983; Motowidlo, 1984; Puffer, 1987; Smith et al., 1983) have also consistently reported significant correlations between job satisfaction and OCB.

Bateman and Organ (1983) used a longitudinal design and compared a 30 item measure of OCB to overall job satisfaction using the JDI (Smith et al.,1969). They reported correlations around .40 for both time one and time two data collections. They point out that correlations of this magnitude are much greater than those traditionally found when examining job satisfaction and traditional performance criteria.

Smith et al. (1983) also conducted a study examining the relationship between general job satisfaction (as measured using a semantic differential scale) and OCB. They used a 16 item revised version of the OCB scale used by Bateman and Organ (1983) to assess Altruism and Compliance. Correlations with job satisfaction were .33 and .29 for Altruism and Compliance, respectively.

The studies presented above do suggest a consistent relationship between job satisfaction and OCB. Previously, studies were discussed demonstrating the relationship between job satisfaction and organizational withdrawal. Given that OCB is an aggregation of positive non-workrole behaviors and organizational withdrawal is an aggregation of negative non-workrole behaviors, one could expect similar theoretical relationships. Part of the purpose of this study was to simultaneously evaluate these two conceptually similar constructs.

Although conceptually similar, the relationship between positive and negative non-workrole behaviors is not directly apparent. One possible structure would suggest that they are opposite ends of a single dimension. This, however, would suggest that it would not be theoretically possible for employees to engage in both positive and negative non-workrole

behaviors. In other words, if non-workrole behaviors did form a single dimension, they would be negatively correlated.

A second possible structure for these non-workrole behaviors suggests that the two behavioral groups are independent. This would allow for an employee to engage in both positive and negative non-workrole behaviors. It would also suggest that different antecedents lead to positive non-workrole behaviors than lead to negative non-workrole behaviors. It would also allow for some antecedents to lead to both. For example, scoring high on a particular personality trait may lead to both positive non-workrole behaviors and negative non-workrole behaviors. If non-workrole behaviors existed on a single dimension, the personality trait would be related to either positive or negative behaviors.

These behaviors have not previously been conceptualized as a single dimension. Therefore, empirical evidence addressing the specific question of their relation is not available. Consideration of the research presented above and rational consideration of their composition suggests that they are not a single construct. As a result, this study considered the two dimensions to be independent.

The above discussion of attitudes and behaviors at work establishes the first segment of this study. More specifically, it addresses the relationship between job satisfaction and non-workrole behaviors. The second major element of this study addresses the relation between personality and behaviors at work. A review of the literature relevant to this portion of the study is presented in the next section.

CHAPTER 3: LITERATURE REVIEW OF PERSONALITY AND BEHAVIORS AT WORK

Job satisfaction and personality have had similar histories in industrial and organizational psychology but have mainly followed separate paths. They are similar because although both seem intuitively important to issues of employee behavior, neither has produced sufficient empirical evidence to convince the research community of such a claim. Like job satisfaction, personality has suffered from similar methodological and conceptual problems that resulted in it losing popularity among researchers in I/O psychology. There has recently, however, been a renewed interest in personality and its relations to important organizational variables such as performance and productivity. Improved research methodology and continued work on the structure and definition of personality has led to some promising results (see Hogan, 1991). Before discussing the relation between personality and non-workrole behaviors, it would be useful to briefly review the kinds of problems that led to the near abandonment of personality in I/O psychology and the developments that have led to the renewed interest.

The most commonly cited article on personality in the I/O literature is Guion and Gottier's (1965) review of personality measures used for employee selection. Their stated goal for the article was not to review the entire field of personality, but to summarize the personality literature that was published in the *Journal of Applied Psychology* and *Personnel Psychology* between 1952 and 1963. In order to be included in the review, an article had to meet the following restrictions: (1) it had to appear in one of the two target journals in the 12-year period between 1952 and 1963, (2) it had to deal specifically with civilian employment situations and include an evaluative statement regarding the relation of personality test data to some measurement of employment success, and (3) it must have used a personality test that could be found in at least two other studies that met the preceding restrictions. This last restriction was imposed to eliminate many of the "home-grown" measures of personality that were often used.

The conclusion offered by Guion and Gottier (1965) stated that based on the evidence from their study, the use of personality in making employment decisions was not recommended. They did, however, suggest that personality research may have something to offer I/O psychology, but research up to that point in time did not reveal it. For example, they refer to the reviewed studies and state "What can be said of these [results] is that they demonstrate that personality measures have had predictive validity more often than can be accounted for simply by chance." (p. 141). Granted, this is not an overly positive assessment, but it does suggest that the construct does merit further study.

In their conclusions, Guion and Gottier (1965) also refer to an issue, which has since become known as the "criterion problem," as a possible reason for the poor predictive validity. In most of the studies reviewed, the criteria consisted of some form of performance ratings. Guion and Gottier questioned the quality of the ratings and their affect on the results. They made reference to the fact that most of the criteria used for validity studies consisted of some form of supervisor rating with little information given regarding what was being rated or how. Guion and Gottier also commented on the fact that any job descriptions provided were also quite "sketchy.".

The lack of reliable criterion data automatically precludes the ability to properly judge the usefulness of the personality construct. Guion and Gottier's (1965) review was conducted prior to understanding the concept of validity generalization in applied measurement. It was not until approximately 15 years later that the negative effects of small sample sizes, low reliability, clerical errors, etc. were generally understood (Schmidt & Hunter, 1981). If one examines Guion and Gottier's tables that list the attributes of each study reviewed, many of them had fewer than 100 participants. Also, the most frequent type of criteria listed is "ratings," which as Guion and Gottier pointed out, were of questionable quality.

It is important to note that Guion and Gottier did a valuable service to the research community by exposing the poor condition of personality research in I/O psychology. The

research community, however, did not respond in such a way as to use the information to improve the field. Instead, the overall effect of the negative conclusions was a near abandonment of personality research throughout I/O psychology. The number of studies conducted directly examining personality and its use in I/O psychology declined greatly (Bernardin & Bownas, 1985; Furnham, 1992).

Guion and Gottier's (1965) review was just one contributing factor to the lack of success and subsequent waning popularity of personality in I/O psychology. Another reason was the focus on measures of abnormal personality. Most traditional personality theories were developed to explain neurotic or extreme behavior (Hogan, 1991). These theories originated mainly in clinical psychology, and therefore, were often organized around psychoanalytic theory or other similar doctrines. Examples of these types of measures include the Minnesota Multiphasic Personality Inventory (MMPI; Hathaway & McKinley, 1943) the F scale (Adorno, Frenkel-Brunswik, Levinson, & Sandford, 1950), and the Thematic Apperception Test (McClelland, Atkinson, Clark, & Lowell, 1953). The purpose of these types of tests was to aid in the assignment of people to categories with the intention of proper diagnosis and treatment. These measures are appropriate for some uses in I/O psychology. For example, the MMPI is often used to screen individuals who are entrusted with public safety such as police officers or nuclear power plant operators. These are positions in which employees with a risk of psychopathology must be carefully screened. However, measures of psychopathology do not necessarily have a connection to the day-to-day activities (e.g., performance or attendance behaviors) of most workers. Hogan (1991) makes this point by stating "The absence of neurosis does not necessarily imply the presence of anything useful" (p. 880). As a result, many of the studies using measures developed around traditional abnormal personality theory were not valid predictors of relevant organizational variables (Guion and Gottier, 1965).

Beyond the research conducted using traditional personality theory, there was another approach being taken to personality research that focused on the internal structure of personality. Instead of trying to classify people according to types or categories, researchers investigated the possible dimensions of personality in which people might differ (e.g., Cattell, 1965; Fiske, 1949; Guilford, 1975; Norman, 1963). This approach employed a trait perspective to the conceptualization of personality structure and its research eventually led to the five-factor model that is generally accepted today (Aamondt, 1996; Barrick & Mount, 1991; Digman, 1990; Hogan, 1991).

The history of the five-factor model (see Digman, 1990 for details) begins with Klages (1926), a German psychologist, who suggested that personality could be understood by examining language and the words used to describe people. The basic premise states that language evolves in conjunction with human evolution. Therefore, as people differ on particular traits, there should be corresponding language that describes these differences.

This idea was implemented by Baumgarten (1933), another German psychologist, who compiled and examined words describing personality found in the German language. This same idea was put to use by Allport and Odbert (1933) who developed a list of English words describing personality. It was finally Cattell (1943, 1946, 1947, 1948) who combined this lexical concept with factor analysis to identify a number of factors that could be used to describe differences in personality. His research resulted in a complex taxonomy that consisted of at least 16 primary factors and eight second-order factors. Cattell's theory was based on studies using peer ratings of college students and was considered to be a more objective description of personality than other theories that preceded it (Digman, 1990).

Fiske (1949) unsuccessfully attempted to replicate Cattell's system. Fiske's conclusion stated that he was unable to find evidence to suggest more than five identifiable factors. Similar attempts to replicate Cattell's findings were made by others such as Tupes (1957) and Tupes and Christal (1961), but Cattell's complex structure was not supported. In

fact, the conclusions continued to point in the direction of a five-factor solution. Tupes and Christal (1961) studied several samples from many backgrounds including males, females, students, non-students, military personnel, and others. In almost all samples there appeared to be firm evidence for a five-factor solution.

Other significant studies examining the structure of personality include Borgatta (1964), Hakel (1974), Norman (1963), and Smith (1967). Of these studies, Norman is most closely associated with popularizing the five-factor model of personality. In fact, the model is commonly referred to in the literature as "Norman's Big Five." Norman named the five factors (1) Emotional Stability, (2) Extroversion or Surgency, (3) Culture, (4) Agreeableness, and (5) Conscientiousness. The names for each of the factors have varied somewhat from researcher to researcher. For example, Borgatta (1964) labeled the factors: (1) Emotionality, (2) Assertiveness, (3) Intelligence, (4) Likeability, and (5) Task Interest. Costa and McCrae (1985) labeled them: (1) Neuroticism, (2) Extroversion, (3) Openness to Experience, (4) Agreeableness, and (5) Conscientiousness.

As the various names suggest, there are still some differences in the content of the factors depending on the theorist. There is, however, general agreement regarding the number of factors and their basic meanings. The general meaning of each factor will be described here using descriptions provided by Costa and McCrae (1992), two of the most prolific researchers of the Big Five and authors of the NEO PI-R which is a personality inventory designed and developed specifically to measure the five factors of personality. It is important to note that personality in the context of this study (and as measured by the NEO PI-R) refers to *normal* personality.

The first factor is labeled neuroticism. The neuroticism domain deals mainly with the emotional stability and adjustment of an individual. People who score high on this dimension are likely to experience negative affect as characterized by fear, sadness, anger, guilt, etc. Because the focus is on normal personality, even high scores on this dimension

can be considered normal and do not necessarily indicate psychiatric problems. Individuals scoring low on neuroticism can be described as calm, relaxed, and even-tempered.

The second factor is most often referred to as Extroversion but has also been known as Surgency. (It will be referred to as Extroversion in the remainder of this document.) People scoring high on the Extroversion factor are often described as outgoing, gregarious, upbeat, and full of energy. Low scorers are often labeled shy, reserved, independent, and withdrawn. Costa and McCrae (1992) point out that low extroversion scores should be seen as a "lack of extroversion" as opposed to the "opposite of extroversion." The individual who is not happy and gregarious does not necessarily have to be sad and depressed.

Openness to experience contains elements such as active imagination, aesthetic sensitivity, attentiveness to inner feelings, intellectual curiosity, etc. Other labels for this dimension include intellect or culture. This factor is probably the most difficult to define and there are still disagreements regarding its meaning (Digman, 1990).

Agreeableness is yet another factor. The agreeable person can be described as altruistic, sympathetic, helpful, and optimistic. The person low on the agreeableness dimension is likely to be anti-social, difficult to get along with, and possibly narcissistic.

The Conscientiousness factor has received recent attention because of its association with both work performance and integrity testing (Barrick & Mount, 1993). Costa and McCrae (1992) suggest that conscientiousness mainly deals with an individual's self-control. By self-control, they mean the ability to resist impulses as well as the ability to plan, organize, and carry out tasks. Conscientiousness is also associated with descriptors such as scrupulous, punctual, and reliable.

These five factors are intended to represent the most basic structure of personality. Although the factors are considered independent, they are, nonetheless, correlated to some extent. Costa and McCrae (1992) report correlations among the factors ranging from .02 to .53 in absolute value. Costa and McCrae also report validity evidence for the five factors

derived from a factor analysis indicating a correlated factor structure. Further validity evidence is presented in the methods section.

As a representation of the most basic structure of personality, and given the criterion of this study is a limited group of all possible work behaviors, it would be inappropriate to expect all five factors to be related to the criteria. In fact, the broad application of personality without regard for its theoretical relationship with criteria has been a common criticism of personality research (Schneider & Hough, 1995). Therefore, only neuroticism, agreeableness, and conscientiousness are examined in this study. The definitions of extroversion and openness to experience do not provide theoretical reasons to expect them to be related to non-workrole behaviors. Specific expectations about the three personality factors and non-workrole behaviors are provided below.

Neuroticism is described by Costa and McCrae (1992) as being distressed, nervous, scornful, irrational, and impulsive. It is hypothesized that employees who are high in neuroticism are more likely to engage in work withdrawal. Similarly, it is expected that employees who score low on neuroticism are less likely to engage in work withdrawal.

High conscientiousness is described as being punctual, determined, and reliable. These types of descriptors are theoretically associated with behaviors that make up OCB such as taking responsibility for initiating changes in your work and staying late to help a co-worker. Accordingly, conscientiousness is expected to be negatively related to work withdrawal behaviors in this study.

Agreeableness is characterized by being helpful, altruistic, and generally cooperative. These traits are theoretically associated with positive helping behaviors that make up OCB. Accordingly, it is hypothesized to be positively related to OCB in this study.

Personality Facets. According to Costa and McCrae (1992) each of the five general factors are comprised of six subfactors called personality facets. The personality *facets* that make up the three personality *factors* of interest to this study are presented here. Neuroticism

consists of facets labeled anxiety, angry hostility, depression, self-consciousness, impulsiveness, and vulnerability. The agreeableness factor consists of trust, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Conscientiousness is composed of competence, order, dutifulness, achievement, self-discipline, and deliberation (see Costa & McCrae, 1992)

The same rationale that leads to limiting the number of factors expected to be related to the criteria of non-workrole behaviors also suggests limiting the number of facets expected to be related to the criteria. The facets of impulsiveness (from neuroticism), altruism (from agreeableness), and dutifulness (from conscientiousness) are of particular interest to this study because they should be theoretically linked to non-workrole behaviors. Impulsiveness refers to the desires or cravings that an individual may experience. High scorers find it difficult to resist temptation. Altruism refers to showing concern for others and a willingness to help. Dutifulness refers to following ethical principles and moral obligations. This results in an individual being considered reliable and dependable.

Based on their definitions, these three personality facets are expected to be more closely related to the criterion of non-workrole behaviors than the three personality factors from which they are derived. They are more specific than the personality factors and do not include extraneous content. Therefore, they are included in the study in order to compare general and specific levels of criterion-relatedness. Very little organizational research has been conducted using these particular facets of personality. As a result, little can be said about their demonstrated relation to the behavioral criteria in this study. Theory, however, leads to the following expectations. Impulsiveness is positively related to work withdrawal. Dutifulness is positively related to OCB and negatively related to work withdrawal. And Altruism is positively related to OCB. More information is presented about their expected relationships to non-workrole behaviors in the discussion of hypotheses given at the end of this section.

Criticisms of the Five-Factor Model

Although the five-factor model of personality has received general support from most personality researchers (Hogan, 1991), there are some who are not convinced it is the best way to represent the entire construct of personality. Waller and Ben-Porath (1987) claim that the five-factor model is not comprehensive because it does not account for other established theories of personality (e.g., Murray, 1938). Block (1993) expresses concern regarding its representativeness because of trait descriptors that have been omitted during its factor analytic development. For example, he points out that Cattell's (1945) list of 35 variables that has served as the basis of much of the factor analytic research that led to establishing the five-factor model, is only 0.1% of the 4505 trait descriptors that were originally compiled by Allport and Odbert (1936).

In their recent review of the use of personality in I/O psychology, Schneider and Hough (1995) assess concerns regarding the appropriateness of the five-factor model and conclude that "It is *not* time for I/O psychology to embrace the five-factor model of personality." (p. 84). Their statement does not, however, mean that it should be abandoned. The five-factor model is a useful structure for personality, and its contributions to personality research have not yet been fully investigated. Therefore, research should continue on both the five-factor model as well as other possible conceptualizations of the construct.

It is not the purpose of this study to determine the "truth" about the appropriate internal structure of the personality construct. The five-factor model is a consistent and durable representation of personality that is widely accepted and is being used extensively in several areas including counseling, clinical, and educational psychology (see Costa and McCrae, 1992 for details). Because of its dominance in the field, it is important to know as much as possible about its relationships with other variables. While recent attention has been directed within I/O psychology toward identifying the role of the five-factor model in employee selection, performance, and productivity (Schneider & Hough, 1995; Hogan,

1991; Barrick & Mount, 1991; Rosse, Miller, & Barnes, 1991; Tett, Jackson, & Rothstein, 1991; Barrick & Mount, 1993), research on its relation to other work behaviors such as work withdrawal or OCB is conspicuously absent.

As was discussed previously, work withdrawal and OCB have been studied as consequences of job satisfaction. This study also includes personality as an explanatory variable in the prediction of these non-workrole behaviors. Because both job satisfaction and personality are investigated as antecedents to non-workrole behavior in this study, it is useful to first examine how personality and job satisfaction have been shown to be related to each other in previous studies.

Personality and Job Satisfaction

A review of the literature that directly examines the relationship between personality and job satisfaction is difficult because of the many conceptualizations of personality. In fact, few studies in I/O psychology have actually focused specifically on personality and its relation to job satisfaction. This is at least partially due to the low regard in which personality has been held by researchers in I/O psychology. There have, however, been several studies that have examined similar concepts that are closely related to personality even if they are not referred to as such. These studies examine what is collectively known as "the dispositional approach to job satisfaction."

The dispositional approach to job satisfaction developed from the idea that some people are predisposed to be more satisfied than others regardless of their work situation. This sparked a flurry of research that aimed to determine the role of disposition in causing job satisfaction (e.g., Arvey, Bouchard, Segal, & Abraham, 1989; Gerhart, 1987; Judge & Hulin, 1993; Levin & Stokes, 1989; Staw & Ross, 1985; Schneider & Dachler, 1978; Staw, Bell, & Clausen, 1986). Traditionally, most job satisfaction studies examined external/situational influences on job satisfaction such as job characteristics (Hackman & Oldham, 1976) or social information processing (Salancik & Pfeffer, 1977). The

dispositional approach, however, looked to internal influences to explain reported job satisfaction.

A key piece of evidence regarding the influence of disposition on job satisfaction was to establish the stability of individuals' levels of satisfaction across time and situations. Staw and Ross (1985) analyzed reports of satisfaction from over 5,000 men that were part of a longitudinal study conducted by the Center for Human Resource Research (1977). The results showed statistically significant correlations across a five-year period. The correlations of satisfaction over time ranged from .29 to .44. Staw and Ross also reported statistically significant satisfaction correlations when the employees had changed both occupation and employer in the five-year period. Correlations here were expectedly lower because of time and changing jobs, but the correlations were still statistically significant and ranged from .19 to .31.

Judge and Hulin (1993) tested a causal model that predicted a dispositional influence on job satisfaction and reported that the results do support such a model. Judge and Hulin predicted that disposition led to subjective well-being (a representation of life satisfaction) and that the relation between subjective well-being and job satisfaction was reciprocal. The model also included demographic and other external variables such as alternative employment opportunities and wages. The path coefficient representing the influence of disposition on subjective well-being was .58. The path coefficient for subjective well-being to job satisfaction was .36. Judge and Hulin concluded that their findings provided strong support for a dispositional basis of job satisfaction.

Contrary to the studies just discussed, other researchers have concluded that disposition does not play a significant role in determining job satisfaction (e.g., Gerhart, 1987; Newton & Keenan, 1991). Gerhart, like Staw et al., took a longitudinal approach to comparing dispositional and situational effects on job satisfaction. His conclusions stated that there was some evidence of the stability of job satisfaction measures across time, but also

that situational variables, such as job design, affected job satisfaction to a greater extent than did dispositional factors. He concluded that the relation between disposition and job satisfaction was probably not significant enough to be of much concern.

Newton and Keenan (1991) also applied a longitudinal approach and came to a conclusion similar to Gerhart's (1987). They state that there is evidence that suggests a stable propensity to report similar levels of satisfaction across time. They point out, however, that the stability does not necessarily confirm a dispositional cause. They suggest that the correlations between reports over time may be the result of ongoing stability across situations.

Other studies dealing with internal influences of job satisfaction examine the role of disposition as defined by the traits of positive or negative affectivity (Agho, Mueller, & Price; 1993; Decker & Borgen, 1993; Furnham & Zacherl, 1986; Levin & Stokes, 1989; Sah & Ojha, 1989). The concepts of positive and negative affectivity come from the personality literature and are more closely related to traditional concepts of personality found outside I/O psychology. In fact, positive and negative affectivity have been shown to correspond to extroversion and neuroticism from the five-factor model, respectively (Clark & Watson, 1991). As a result, studies examining job satisfaction and positive and negative affectivity are also relevant to the relationship between personality and job satisfaction.

Levin and Stokes (1989) investigated the relative effects of negative affectivity and task design (job characteristics) on reported job satisfaction. They reported that adding negative affectivity to a regression equation predicting satisfaction with the work itself as measured by the JDI, improved the variance accounted for above and beyond that accounted for by task design. The increase in variance accounted for was 4.5% and was statistically significant. The zero-order correlation reported between negative affectivity and job satisfaction was -.29.

Decker and Borgen (1993) also included measures of job satisfaction in a study examining the relations between negative affectivity and measures of stress, strain, and coping at work. They found that negative affectivity accounted for approximately three to five percent to the variance in job satisfaction beyond the other variables. Contrary to Levin and Stokes' (1989) who found a similar value, they concluded that the percentage of variance accounted for by negative affectivity did not add much to the prediction of job satisfaction.

Further discussion of positive and negative affectivity may shed some light on its relation to job satisfaction. A distinction needs to be made between positive and negative affectivity as traits (i.e., dispositions) and positive and negative affectivity as states (i.e., mood). Tellegen (1985) writes that positive and negative affectivity traits were identified as higher-order dimensions when factor analyzing responses from scales intended to measure mood. These higher order factors have come to be considered similar to personality traits and represent relatively stable aggregates of the responses made on mood scales (see Tellegen, 1985; Watson & Clark, 1984). Therefore, positive and negative affectivity as traits represent the tendency to experience positive and negative affect over time. As would be expected, positive and negative affectivity have been shown to be related to the experience of positive and negative mood states at work (George, 1989, 1992).

Affective States. Mood at work is conceptually similar to job satisfaction because it involves how people feel at work. However, mood has been shown to be a distinct element that is different than traditional conceptualizations of job satisfaction (George, 1989). Job satisfaction has been shown to consist of a cognitive element and an affective element. Brief and Roberson (1989) suggest that three popular measures of job satisfaction, the Minnesota Satisfaction Questionnaire (Weiss, Dawis, England, & Lofquist, 1967), the JDI (Smith et al., 1969), and the Faces Scale (Kunin, 1955), consist mainly of cognitive elements. Mood therefore, composes an important affective element that is not being completely captured in these popular measures of job satisfaction.

Affective state (mood) has also been shown to be distinct from personality, which is the other determinant of non-workrole behavior proposed in this study. George (1989, 1991) has demonstrated that, although positive and negative affective states are partially determined by positive and negative affectivity (traits), they do not necessarily lead to the same types of behavior. That is, she found positive affective states to be related to decreased absenteeism and increased prosocial behavior. However, the trait of positive affectivity was not reported to be directly related to either behavior. Positive affective state was reported to correlate -.38 with turnover intentions and -.28 with absenteeism (George, 1989). Negative affective state correlated .17 with turnover intentions but only .03 ($p > .05$) with absenteeism. Correlations for positive affectivity (trait) were reported as -.01 ($p > .05$) and -.10 ($p > .05$) for turnover intentions and absenteeism, respectively. Negative affectivity (trait) was shown to correlate .25 and .08 ($p > .05$) with turnover intentions and absenteeism, respectively.

The theoretical implications of the above results for this study is that affective state is suggested to have a unique influence on behavior beyond both personality and job satisfaction. Affect is a temporary, emotional construct that can influence behavior differently than the stable, cognitive constructs of personality and job satisfaction. Therefore, it was also included as an antecedent of work withdrawal and OCB.

Personality and Non-Workrole Behaviors

Like the personality and job satisfaction literature, there are few studies available that have directly examined the relation between personality and non-workrole behavior such as OCB and work withdrawal. However, studies that examine both personality and OCB are somewhat more common than studies examining personality and work withdrawal. Many of the historical reasons associated with personality discussed above also explain the lack of studies examining its relationship with non-workrole as well. That is, because personality had fallen out of favor within I/O psychology, it was not investigated in relation to job satisfaction *or* non-workrole behaviors. Another reason little research exists in this area is

that work withdrawal, as conceptualized in this study, simply has not existed for very long. Therefore, the review is limited to withdrawal studies that have focused on single behaviors such as absenteeism and turnover.

Personality and Withdrawal. The problems that have generally kept personality out of selection research over the years have also kept it out of studies being conducted on withdrawal behaviors. Weiss and Alder (1984), in their review of personality and organizational behavior, stated that the nomological networks from the two areas of research have yet to be combined. Studies have been conducted in the area, but the lack of a unifying structure for personality research has resulted in many different conceptualizations of personality. This and the basic lack of research attention on personality in I/O psychology makes it difficult to draw relevant conclusions from the existing withdrawal literature.

Studies on personality and withdrawal that do exist have generally found that using personality will improve prediction of withdrawal and withdrawal intentions (e.g., Bernardin, 1977; Jenkins, 1993; Judge, 1993; Kemery, 1991; Mowday & Spencer, 1981). Bernardin examined the correlations between absenteeism and scores on the following traits: emotional stability, anxiety, achievement orientation, aggression, independence, self-confidence, and sociability. He reported that anxiety (similar to neuroticism) and conscientiousness were predictive of absenteeism. Correlations between anxiety and absenteeism ranged from .21 to .25. Correlations between conscientiousness and absenteeism ranged from -.40 to .-21. He concluded that personality variables account for a small, statistically significant amount of variance in absenteeism. The results, however, are based on small sample sizes ($n < 60$) and should be interpreted carefully.

Kemery (1993) also reported that personality predicts withdrawal behavior as defined by the number of days absent in a six-month period. That interpretation of his results, however, is questionable. His study examined the relative effects of role conflict, role ambiguity, and personality as conceptualized by positive and negative affectivity. Using

hierarchical regression analyses, Kemery showed that affective disposition contributed to withdrawal beyond that which was predicted by role conflict and role ambiguity. Although the results were statistically significant, the additional variance accounted for was very small (R^2 = .004). Kemery measured personality by collapsing positive and negative affectivity into a single bi-polar scale. Tellegen (1985) clearly demonstrated the existence of two separate dimensions of positive and negative affectivity. Combining the two activity dimensions may have artificially weakened Kemery's observed relationship with absenteeism.

Mowday and Spencer (1981) also showed that personality could predict absence behavior and turnover. Their study too, reported that the personality regression coefficients were statistically significant, but the variance accounted for was quite small (R^2 = .02). Mowday and Spencer used scales measuring need for achievement among the participants. Achievement is considered to be one element that makes up the conscientiousness scale in Costa and McCrae's NEO PI-R (1992). The reliability of the scale used by Mowday and Spencer to measure personality was .43. They defended the low reliability of the scale by stating that measures of complex personality traits seldom attain the levels of internal consistency expected of other measures. Nonetheless, their results should be interpreted carefully.

Ferris, Youngblood, and Yates (1985) used personality to predict training performance and withdrawal in a sample of flight attendants. The study used four second-order factors from the 16PF, a measure of 16 factors of personality (Cattell, Eber, & Tatsuoka, 1970). The factors were Extroversion, Anxiety, Corteria (which is described as "tough poise"), and Independence. The Anxiety scale, which is similar to neuroticism as measured by the NEO PI-R (Costa & McCrae, 1992), was the only scale shown to be negatively correlated with attendance (measured as the amount of sick leave not used in a one-year period; r = -.34). Turnover did not show a statistically significant correlation with

any of the four scales. Methodological concerns regarding this study such as non-normally distributed behaviors hinder the interpretation of the results.

The relatively frequent occurrence of studies reporting statistical significance but small effect sizes does not paint an optimistic picture regarding the ability of personality to predict individual withdrawal behaviors. However, it is difficult to draw any conclusions from this literature because of the lack of coherent methods and the incongruency of personality as a general measure and the use of isolated instances of organizational withdrawal behavior. Much like Roznowski and Hanisch (1990) demonstrated with the relation between job satisfaction and aggregated measures of organizational withdrawal, it is expected that there is much to be gained by using personality and aggregated measures of organizational withdrawal to learn about their relationship.

Personality and OCB. The situation regarding personality and OCB is somewhat different than the situation regarding personality and withdrawal. OCB research was initiated through the application of ideas and findings from the study of prosocial behavior in social psychology. Because of its origins in prosocial behavior, OCB was more closely tied to explanations involving personality. Personality had been actively researched as an antecedent to prosocial behavior by social psychologists (e.g., Gergen, Gergen, & Meter, 1972; Underwood & Moore, 1982). Therefore, it logically followed that personality would also be considered as an antecedent to OCB. However, the personality research conducted within social psychology suffered from many of the same conceptual problems regarding the use of personality in I/O psychology. In an early review of the prosocial literature, Krebs (1970) stated that studies investigating prosocial behavior and personality "were plagued with difficulties" (p. 298). Despite the mixed results described in his review, Krebs did claim that there was some evidence suggesting that people low in neuroticism and high in extroversion were more likely to engage in prosocial behavior than those people who were not.

In more recent research, Borman and Motowidlo (1993) present research suggesting that personality is most likely relevant to what they refer to as "contextual performance" as opposed to traditional task performance. They stated that employees who are effective in contextual performance are likely to be empathic, extroverted, well adjusted, cheerful, and achievement oriented. Data reported by Hough and Schneider (1995) supports this proposition. They present correlations for personality with their measures of contextual performance which they labeled "commendable behavior" and "law abiding behavior" of .16 and .39, respectively. These values become more meaningful when compared with the correlation reported for personality and task performance (r = .08).

Organ (1994) suggested that the agreeableness and conscientiousness factors of personality are very similar to the altruism and compliance factors of OCB. Organ and Lingl (1995) as cited in Organ (1994), studied the agreeableness and conscientiousness components of the Big Five and found moderate correlations between personality and OCB. Agreeableness correlated .20 with the altruism factor of OCB. The correlation between conscientiousness and the compliance OCB factor was .30. Organ suggested that the correlations between personality and OCB could be improved by using measures of personality that were even more directly related to OCB. He recommended investigating the more specific facets of the Big Five that have been identified by Costa and McCrae (1992) because OCB like many behaviors of interest to psychologists, is likely to be more complex than the simple structure provided by each of the Big Five factors of personality. This view is congruent with other authors writing recent reviews regarding the use of more construct-relevant personality measures in I/O psychology (e.g., Guion, 1991; Hogan, 1991; Schneider & Hough, 1995).

Overview

The literature review indicates that personality, affect, and job satisfaction have not shown consistent relationships with traditional workrole behavior (e.g., performance) or

traditional, single-incident withdrawal behavior (e.g., absenteeism, turnover). It does, however, suggest that personality, affect, and job satisfaction may be related to non-workrole behavioral families such as OCB and work withdrawal. The study presented here examines the relations among personality, affect, job satisfaction, and non-workrole behaviors in a causal modeling framework. Using two series of nested structural models, a priori comparisons are made to investigate the contribution of job satisfaction, positive and negative affectivity, and personality to the prediction of OCB and work withdrawal. In order to maximize statistical power and minimize possible problems associated with a small sample size, the theoretical models to be tested are organized in two parallel series. The models are the same in both series except for the specification of personality. In the first series of models, personality *factors* are specified. In the second series of models, personality *facets* are specified.

Studies of personality have included various forms and conceptualizations of the construct. Some studies have conceptualized personality very broadly within the content of personality without concern for the study's criterion. For example, George (1990) uses the very general positive and negative affectivity to represent personality. Others have conceptualized personality more precisely. For example, Mowday and Spencer (1981) used "manifest needs" as a very specific and somewhat esoteric conceptualization of personality.

In the study presented here, the level of personality measurement is varied but in a systematic way. Here, personality has been conceptualized in a general form using personality factors as defined in the five-factor theory of personality and in a more specific form using personality facets that have been identified as lower-order factors within the five-factor structure. This creates a situation similar to that encountered with the congruence of level of measurement between attitudes and behaviors. It is different, however, because in the relationship between personality and non-work role behaviors, it is the predictor that is believed to be too broad to be appropriately compared to the behavioral criteria. While work

withdrawal and OCB are broad behavioral families, the personality factors each contain elements that are not expected to be related to the criteria in this study. Consequently, it is hypothesized that the personality facets are more congruent with the criteria of work withdrawal and OCB in terms of their level of measurement, than the more inclusive personality factors.

As was stated previously, Costa and McCrea (1992) have determined that each of the Big Five factors of personality contain six lower-order personality factors referred to as personality facets. The existence of these lower-order factors provides a simple, unified structure by which to include differing levels of measurement for the construct of personality.

Similar to the personality factors, the inclusion of the particular personality facets in this study is based on consideration of their theoretical relationships with the non-workrole criterion behaviors. Because there have been no prior studies directly examining the relationship of the personality facets to organizational withdrawal or OCB variables, the inclusion of the personality facets is based on consideration of their theoretical definition (as given by Costa and McCrae, 1992) and existing information about the higher-order factors to which they belong. Based on the existing literature and consideration of theoretical relationships, the following models were developed to be tested in this study. The series of models containing personality factors (series 1) is described first.

Figure 2 presents Model 1 of the first series which is the null model. It includes no causal relationships, and it serves as a baseline for model fit statistics to which the successive models are compared. It only includes the correlational paths between the exogenous variables to allow for the expected intercorrelations between them. The exogenous variables are allowed to be correlated in the models to account for multicolinearity among the predictor variables. By first testing the null model with only the intercorrelations among exogenous variables allowed to be estimated, the subsequent models will provide a more accurate view of the causal influence of each of the added variables. In other words, if the hypothesized

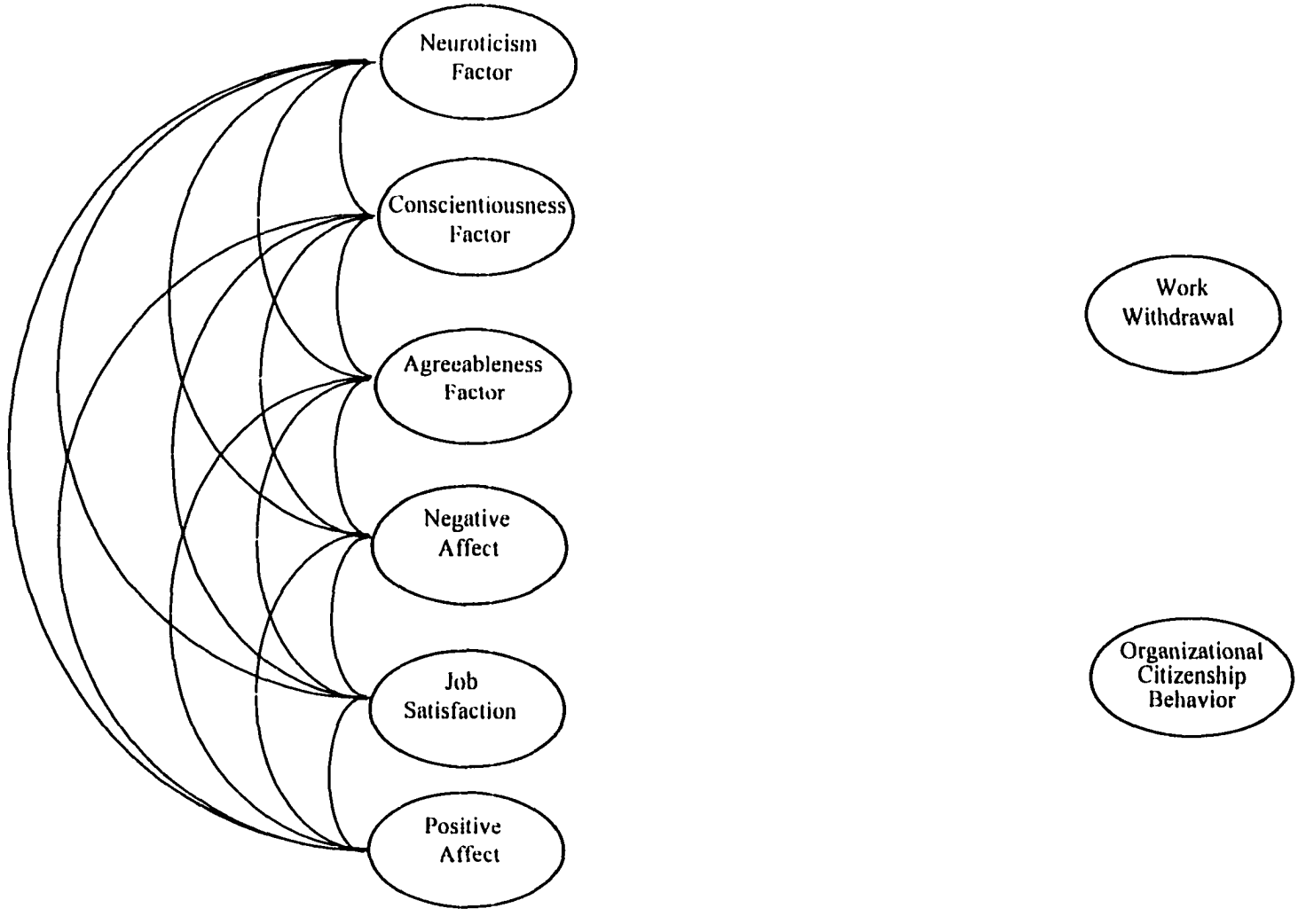


Figure 2. Model 1: The Null Model For Series 1

models were compared to the true null model (i.e., a model with no relationships at all), the increase in goodness of fit statistics would be somewhat inflated as a result of allowing the exogenous variables to intercorrelate in the hypothesized models but not the null model.

Figure 3 presents Model 2 which builds on Model 1. Model 2 includes the hypothesized relationships showing job satisfaction causing work withdrawal and OCB. By adding only job satisfaction to the model, this step will demonstrate the influence of job satisfaction on the two criterion variables. Subsequent models which include additional variables can then be compared to this model to demonstrate their relative contribution to the prediction of the criteria. As was discussed in the literature review, the relationship between job satisfaction and the two criterion variables has been demonstrated frequently in previous studies. Therefore, it is expected that there will be a substantial improvement in the fit of the model by adding these causal paths.

Figure 4 presents Model 3 which continues to build on Model 2. In this model, causal paths are added from positive affect to OCB and from negative affect to work withdrawal. Positive and negative affect have been shown to have distinct effects on withdrawal behaviors and OCB beyond that of job satisfaction or personality. Accordingly, an improvement in model fit is expected to coincide with freeing these causal paths.
Figure 5 presents Model 4 which is expected to be the best-fitting model in this series. It adds to Model 3 by freeing four causal paths. Those paths are from neuroticism to work withdrawal, from conscientiousness to both work withdrawal and OCB, and from agreeableness to OCB. The path from neuroticism to work withdrawal is included because employees who are nervous, anxious, and impulsive are hypothesized to engage in work withdrawal behaviors more than employees who are not. The paths from conscientiousness to both work withdrawal and OCB are explained by the expected relation between the variables based on their definitions. Similarly, the path from agreeableness to OCB is

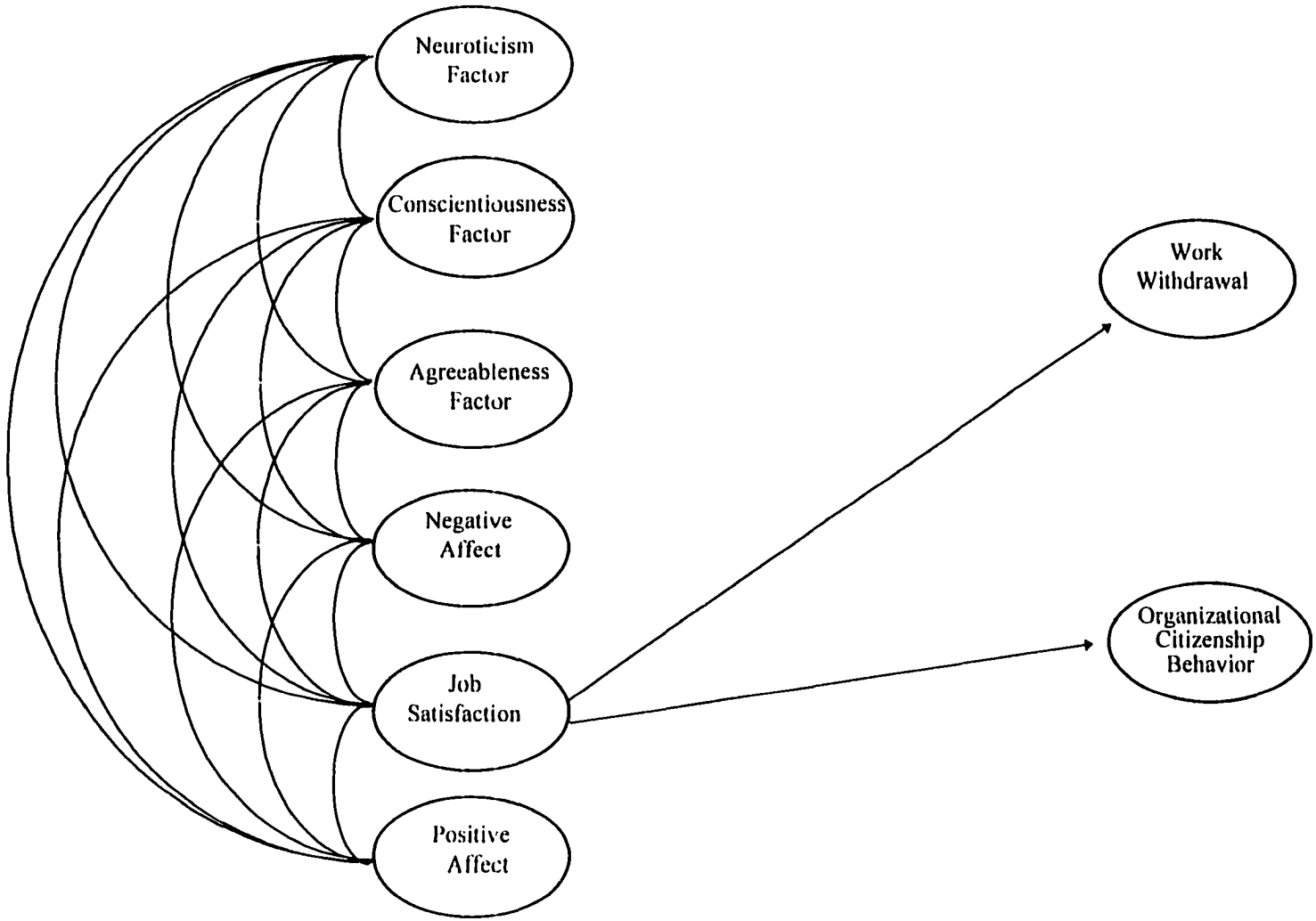


Figure 3. Model 2: Testing Job Satisfaction For Series 1.

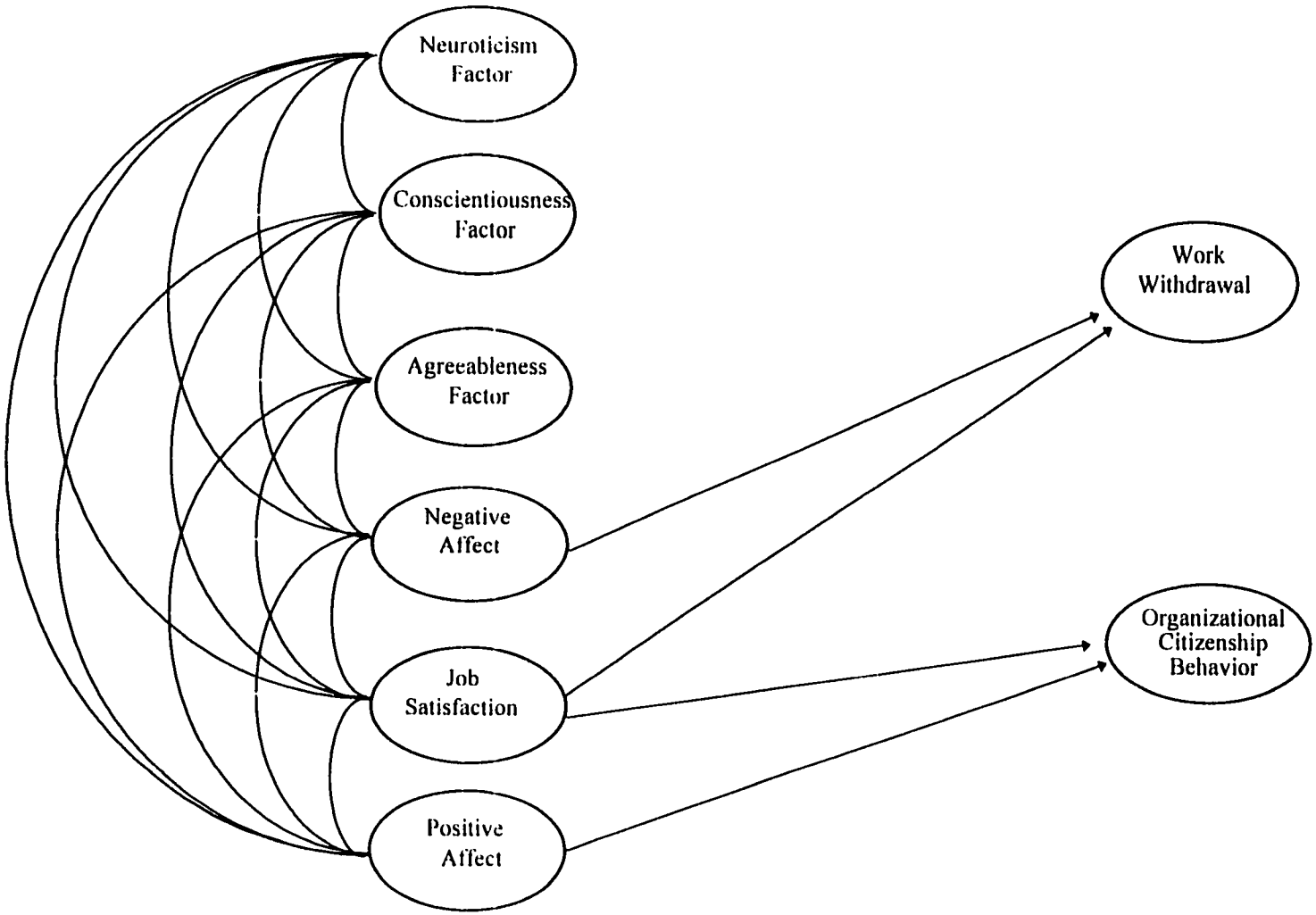


Figure 4. Model 3: Testing Positive and Negative Affect For Series 1.

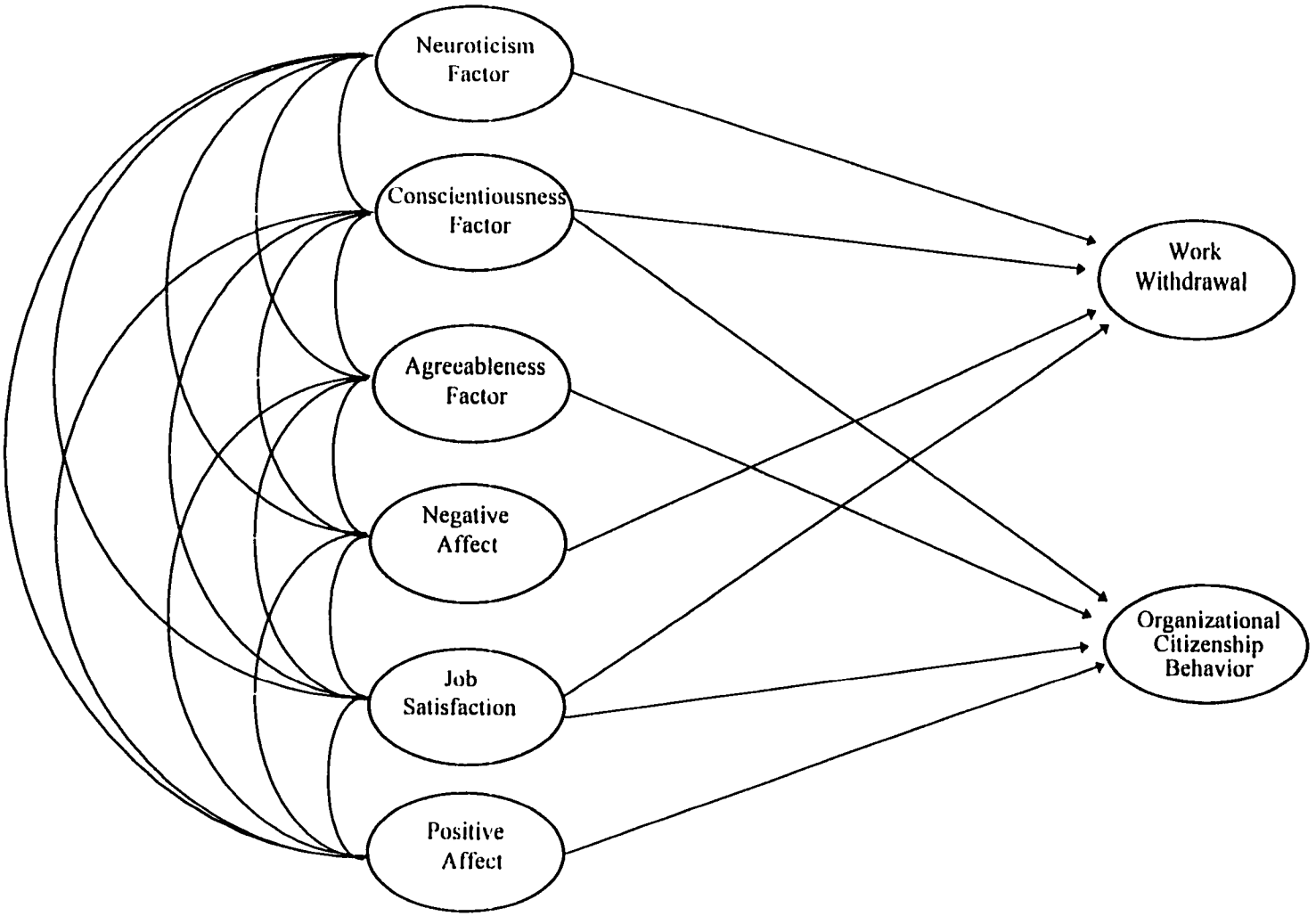


Figure 5. Model 4: Testing Personality For Series 1.

included because of the theme of being helpful and concerned that is common to both concepts.

The second series of models follows the same progression of series 1 except series 2 uses the personality facets of impulsiveness, dutifulness, and altruism in place of the personality factors neuroticism, agreeableness, and conscientiousness. Each of the personality facets is conceptually part of the more general factor it is replacing. Therefore, impulsiveness is a subset of neuroticism, dutifulness is a subset of conscientiousness, and altruism is a subset of agreeableness. The same rationale was used for their inclusion as was used for the inclusion of the personality factors. The difference, however, is the definition of each facet and its expected relation to the criteria.

Figures 6-8 show the same progression demonstrated in series 1 of establishing the relationships between the criteria and job satisfaction and affect. Figure 9 shows model 4 which illustrates the relationships for the personality facets to work withdrawal and OCB. Similar to the first series of models, the rationale for including the specified causal paths is based on the theoretical relationships between the specific facets and the criterion variables.

Model 4 in the second series of models is proposed as the best fitting of all eight models. As was indicated in the literature review above, recent success using personality in the prediction of work behavior has been realized in separate instances by focusing on non-workrole behaviors, construct-related conceptualizations of personality, and positive and negative affective states. This model incorporates each of these elements plus job satisfaction in a way that is expected to accurately represent their empirical relationships.

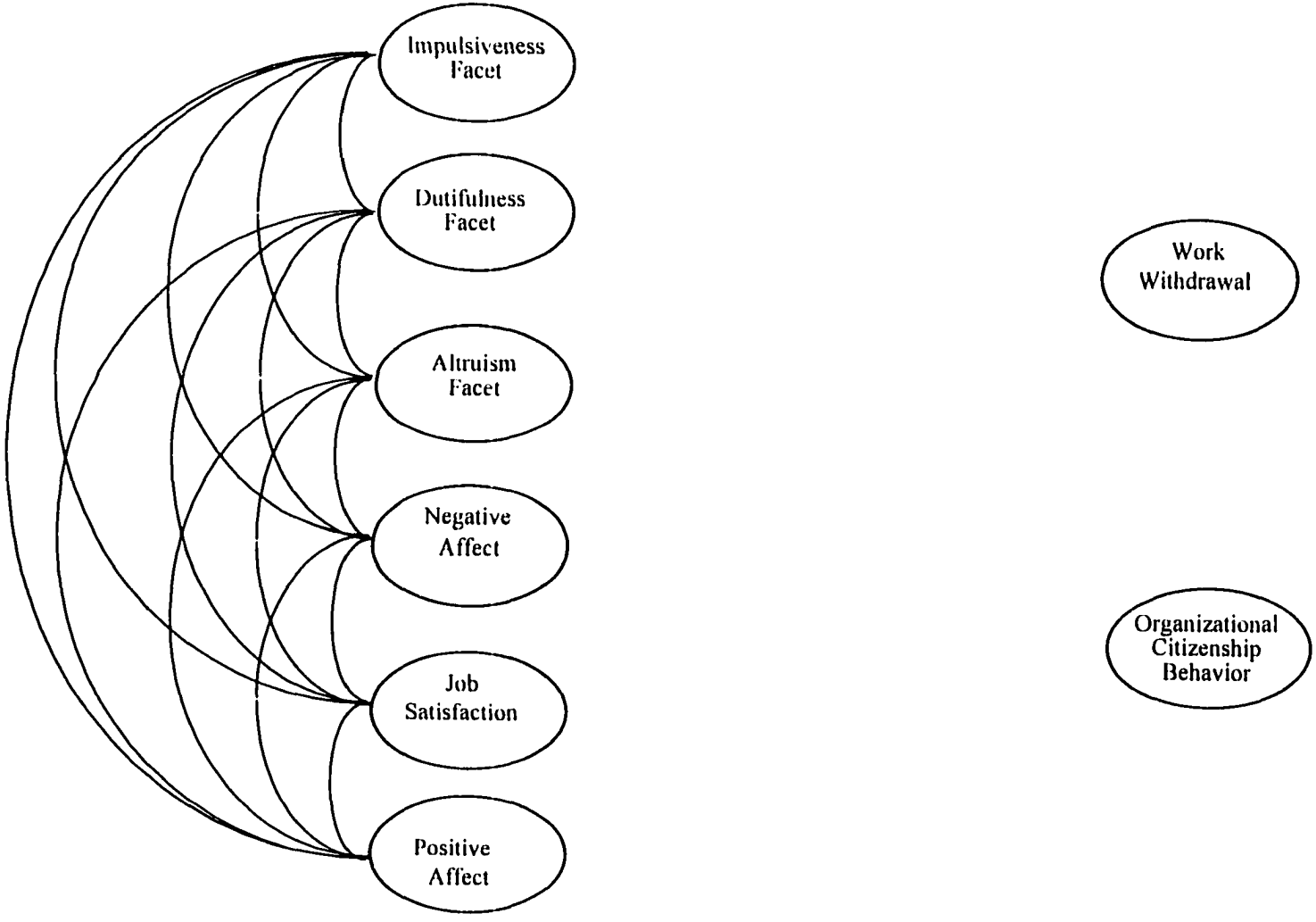


Figure 6. Model 1: The Null Model For Series 2.

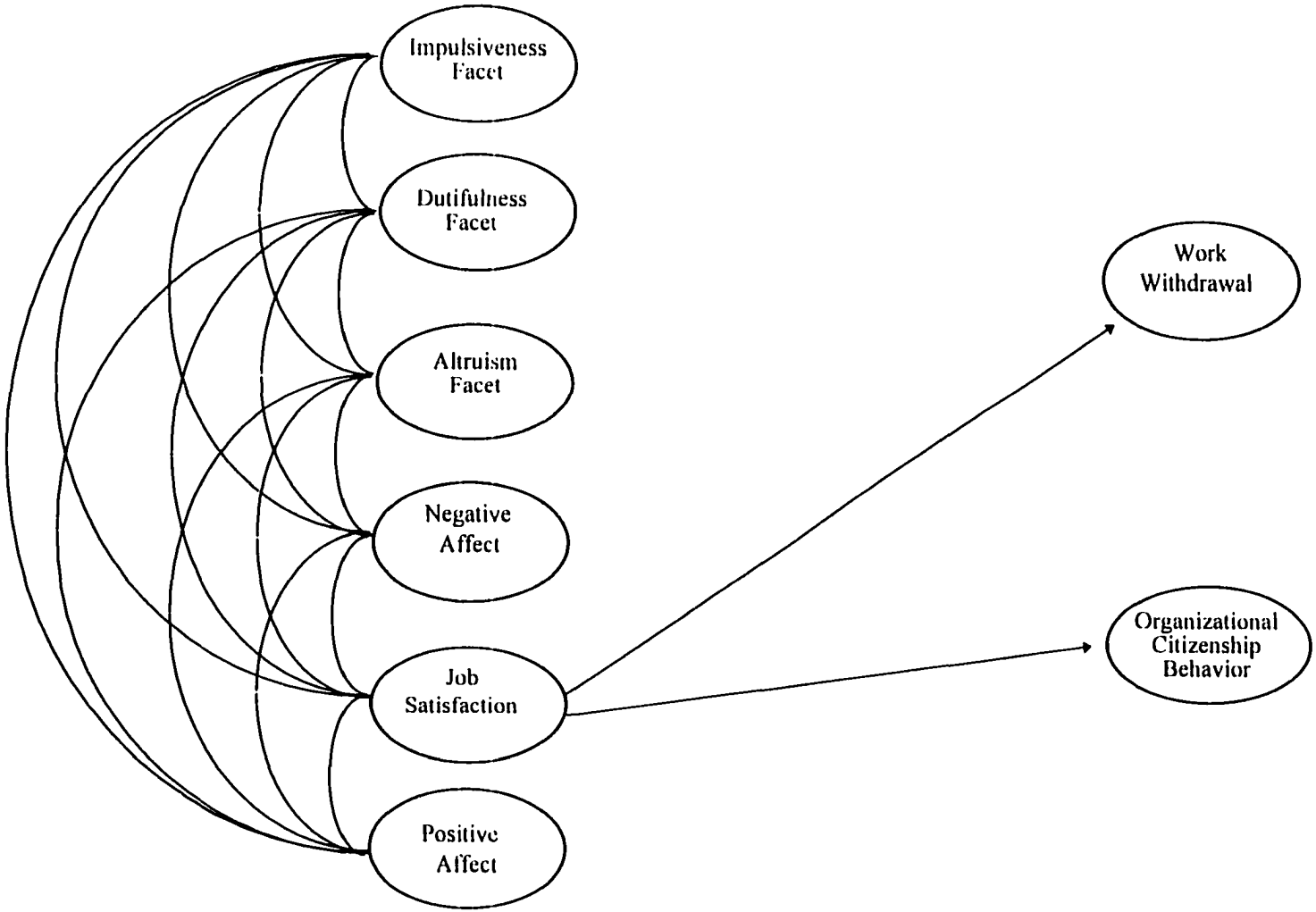


Figure 7. Model 2: Testing Job Satisfaction For Series 2.

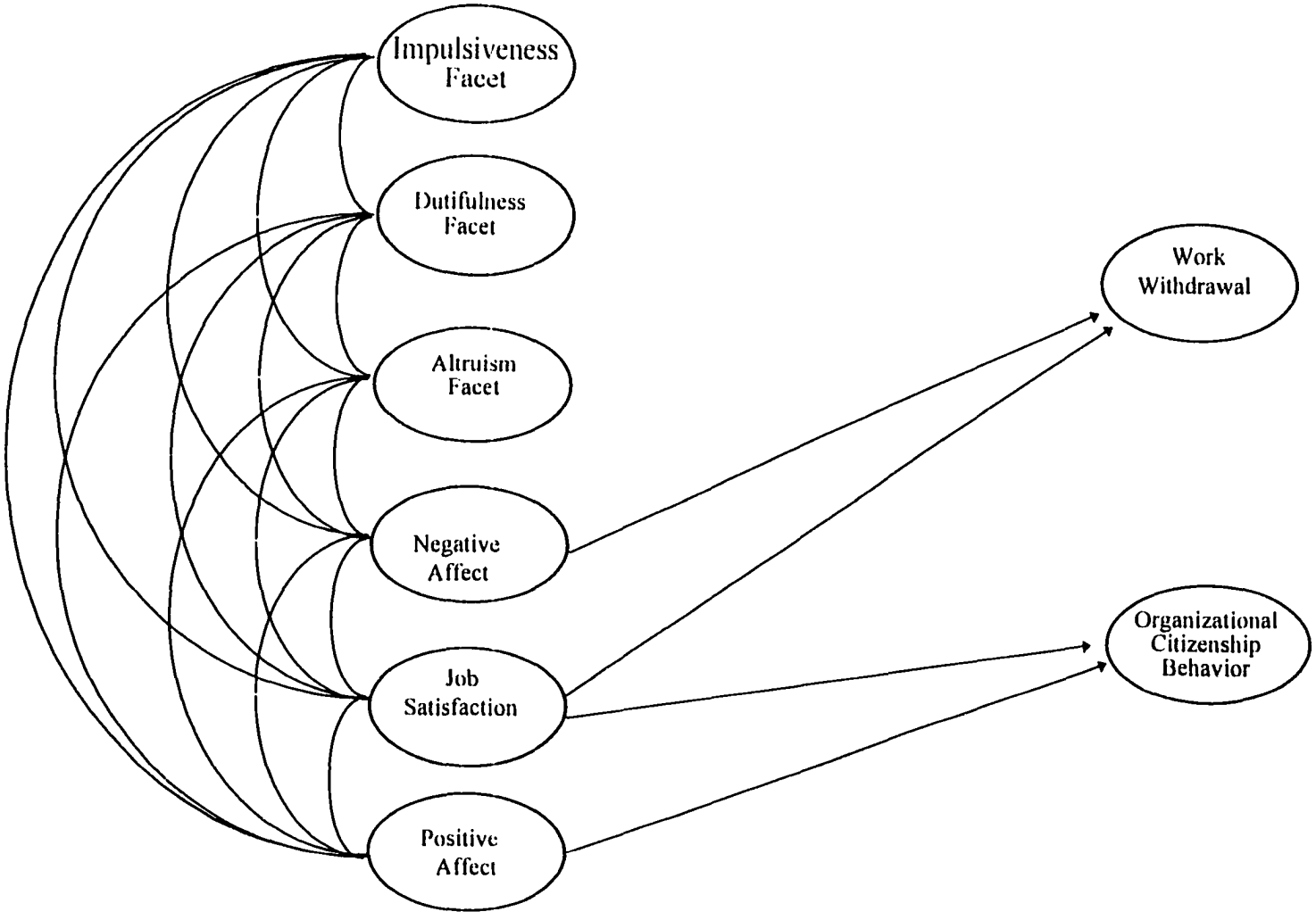


Figure 8. Model 3: Testing Positive and Negative Affect For Series 2.

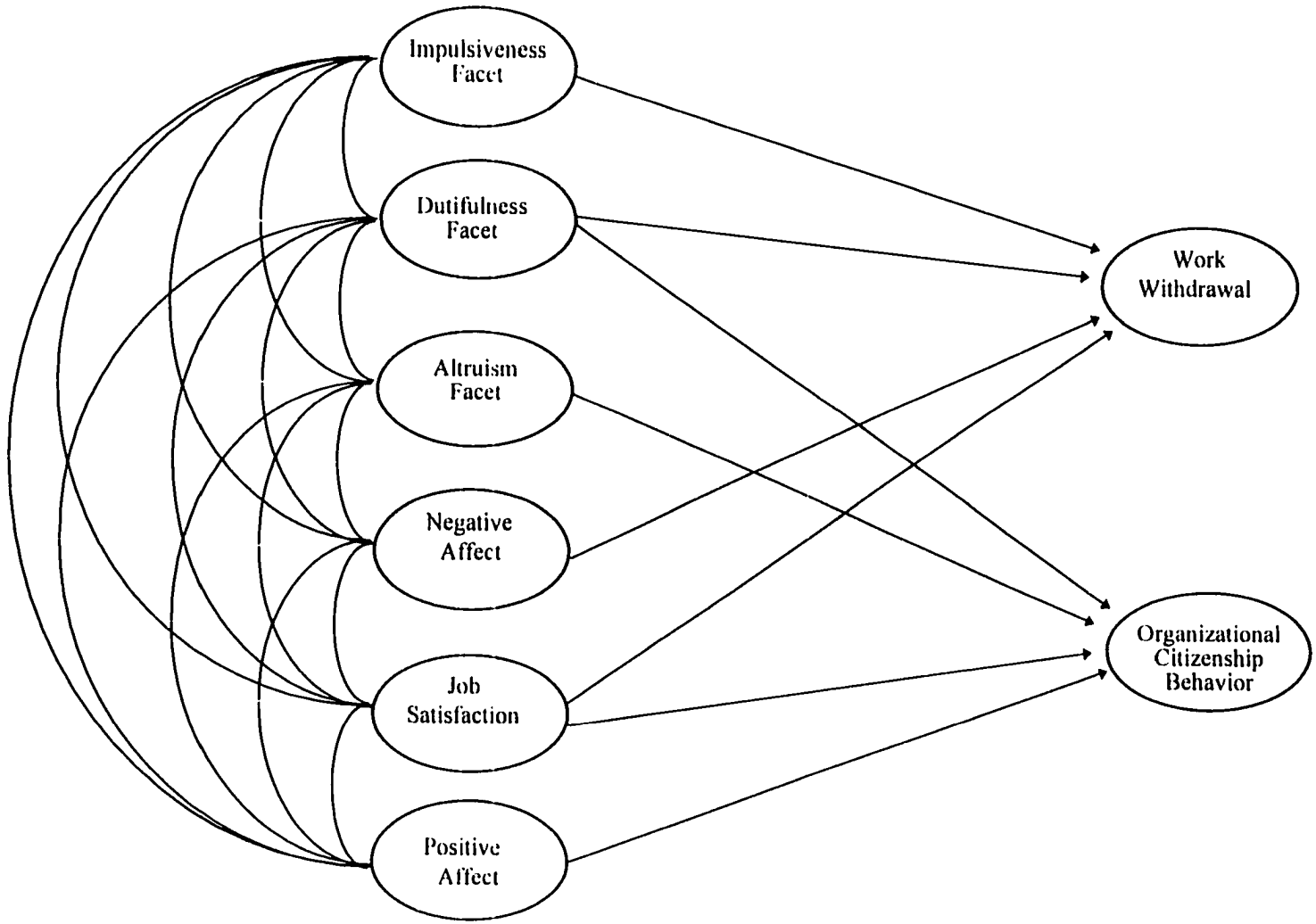


Figure 9. Model 4: Testing Personality For Series 2.

CHAPTER 4: METHOD

Sample

Participants in the study were employees from two organizations providing health care to disabled adults in the rural mid-west. Questionnaires were distributed to employees in both organizations. Overall, 605 employees received questionnaires; 240 in Organization 1 and 365 in Organization 2. One hundred and thirty-four questionnaires (56%) were returned from Organization 1 and 191 questionnaires (52%) were returned from Organization 2. Of the 325 questionnaires that were returned, 12 were removed from the sample because of excessive missing data. A questionnaire was considered to have excessive missing data if any of the relevant scales were missing values for 25% or more of their items. For example, if a 12-item personality factor scale had fewer than nine valid items, the entire case was removed from the data set. A mean replacement strategy was used for those cases having missing data that were not considered excessive. Of the remaining 313 cases, 97 had at least one missing value that was replaced with the variable's sample mean.

After dealing with missing values, the analyses were conducted on a final sample of 313 cases. Several categories of demographic information were collected in the questionnaire. Appendix A provides the questions and possible response options for the demographic data. As might be expected in a residential healthcare industry, the majority of the sample was female and made up 81% of the sample. The respondents were mostly married (67%), full-time employees (72%) who ranged in age from 16 to over 65. The most common age categories were ages 36 to 41 and 42 to 47. Almost the entire sample had an education level of high school or above (96%) and nearly 38% reported having at least a college degree (AA, BA, BS). Salaries for the sample were moderate to low with 88% reporting annual salaries of $25,000 or below.

The sample size of 313 is considered adequate for structural equation modeling based on conventions established by other researchers. Anderson and Gerbing (1988) stated that a

sample size of 150 is usually large enough to obtain a proper solution and avoid non-convergence if there are at least three indicators per variable. Unlike exploratory factor analysis or regression analysis, sample size concerns in structural equation modeling do not focus on the ratio of variables to cases. Instead, they focus on the ratio of estimated parameters to cases. As a benchmark standard, Bentler and Chou (1987) recommend a minimum of five cases for each estimated parameter. For this study, this issue was of greatest concern in the context of running the measurement models; where the greatest number of parameters (76) were being estimated. Using 313 cases to estimate 76 parameters produces a parameter to case ratio of just over four to one. Given that the five to one ratio is a *recommended* standard, there were three indicators per construct, and no problems of convergence were encountered (the measurement models reached convergence in 15 iterations), the sample size was determined to be adequate.

Measures

Each of the measurement scales is presented as an appendix to this paper. In the appendices, the items are organized by content. In the questionnaire mailed to participants, many of the items were presented in random order to alleviate possible response sets. For example, conscientiousness items were mixed with neuroticism items and work withdrawal items were mixed with OCB items.

Job satisfaction. Job satisfaction was assessed using the Job Descriptive Index (JDI; Smith et al., 1969; Roznowski, 1989; see Appendix B). The JDI is a measure that assesses five distinct facets of general job satisfaction. The facets of satisfaction measured by the JDI are work satisfaction, pay and benefits satisfaction, co-worker satisfaction, supervisor satisfaction, and promotion satisfaction. Parsons and Hulin (1982) demonstrated that the facet scales do share a communality that suggests a second-order general factor that runs through each of the facets. Therefore, the summed scales also serve as a measure of overall job satisfaction. The psychometric quality of the JDI is excellent, and it is considered to be

one of the best measures of job satisfaction available (Roznowski, 1989). The validity of the instrument has been thoroughly researched using multiple methods including factor analysis, item response theory, and causal modeling (Hanisch, 1992; Parsons & Hulin, 1982; Roznowski, 1989). It has also been shown to be valid across many different cultural groups (e.g., Hulin & Mayer, 1986; Smith, Balzer, Brannick, Eggleston, Gibson, Ironson, Josephson, Paul, Reilly, & Whalen, 1987). Reliability estimates for the five subscales are reported to range from approximately .80 to .90 (Roznowski, 1989). For this study, the five subscales were by summed to provide an overall measure of general job satisfaction.

Personality. Neuroticism, conscientiousness, and agreeableness were assessed using the NEO Five-Factor Inventory (NEO-FFI;Costa & McCrae, 1992; see Appendix C). The NEO-FFI is a shortened version of the more comprehensive NEO PI-R, a personality inventory designed specifically to measure the five-factor structure of personality. Schneider and Hough state that the NEO PI-R is "the most frequently used and best researched measure of the five-factor model" (1995, p. 80). The NEO PI-R is a measure of *normal* adult personality that consists of five domain scales: Neuroticism (N), extroversion (E), openness to experience (O), agreeableness (A), and conscientiousness (C). The domain scales in the full NEO PI-R are made up of 48 items each. Each domain scale contains six facet scales that measure more specific aspects of each domain. The NEO PI-R was created using a combination of both rational (deductive) and factor analytical (inductive) approaches to scale development. Coefficient alphas for the general scales measuring the five domains are .92, .89, .87, .86 and .90 for N, E, O, A, and C, respectively (Costa & McCrae, 1992).

Because of limits imposed on the length of the questionnaire, a short form of the NEO PI-R, the NEO-FFI was used in this study. The NEO-FFI is composed of a subset of 60 items (12 items per scale) taken from the NEO PI-R. According to Costa and McCrae (1992), items for the NEO-FFI were selected by examining factor loadings of the NEO PI-R on the domain scales. Those items with the highest positive or negative loadings were

selected for the shortened scales. A few substitutions were then made to ensure content diversity and response direction. The correlations between the scales in the NEO-FFI and the more comprehensive NEO PI-R are .92, .90, .91, .77, and .87 for the N, E, O, A, and C domains, respectively. Reliability estimates (coefficient alpha) reported by Costa and McCrae for each of the scales of the NEO-FFI are .86, .77, .73, .68, .and .81 for the N, E, O, A, and C domains, respectively. These coefficients are expectedly lower than the estimates for the much longer NEO PI-R, but are a necessary sacrifice because of time and space limits on the questionnaire. Three-month test-retest reliabilities do show that the NEO-FFI scores are stable over time. These coefficients were reported by Costa and McCrae to be .79, .79, .80, .75, and .83 for N, E, O, A, and C, respectively.

Validity evidence for the NEO PI-R (long form) is extensive; it is one of the most researched measures of the five-factor model. One form of validity evidence is demonstrated by the internal structure of the measure accurately corresponding to the five factors it is intended to represent. Costa, McCrae, and Dye (1991) used factor analysis to analyze the 240 items in the NEO PI-R. The result was a factor structure consistent with the Big Five.

External validation has been demonstrated by relating the NEO PI-R to other personality measures. For example, the NEO PI-R has demonstrated convergent and discriminant validity with other scales such as the Eysenck Personality Inventory (Eysenck & Eysenck, 1964) and the Personality Research Form (Jackson, 1984). Construct validity has been demonstrated by showing the relation between NEO PI-R scores and various personality constructs such as psychological well being, coping, and interpersonal traits. Details on the development and validation of the NEO PI-R can be found in the *NEO PI-R Professional Manual* (Costa & McCrae, 1992).

Unfortunately, as is often the case with shortened versions of psychological measures, there is not as much information available for the NEO-FFI as there is for the NEO PI-R. Costa and McCrae (1992) point out, however, that as a subset of the NEO PI-R, the NEO-FFI

will carry a portion of the demonstrated validity of the longer version. They state that the NEO-FFI scores capture about 85% of the variance accounted for by the full domain scales on the NEO PI-R.

Costa and McCrae (1992) present convergent and discriminant correlations between the NEO-FFI and an adjective checklist measure of the Big Five that had been completed three years earlier. The convergent correlations ranged from .56 to .62 and none of the divergent correlations were in excess of .20. These values seem acceptable given the different methods of assessment and the three year period between measurements (Costa & McCrae, 1992).

The response format for the NEO-FFI is a five-point scale from definitely false/strongly disagree to definitely true/strongly agree. Participants use this format to respond to questions such as I am not a worrier, I am not a very methodical person, and I like to be where the action is.

A validity issue that has been associated with personality assessment is the possibility of participants faking their responses to manipulate how they are perceived (Hogan, 1991). Although it has been shown that it is possible to fake responses to obtain a more desirable score or profile, there is reason to believe that it is not a widespread problem (Hough, Eaton, Dunnette, Kamp, & McCloy, 1990). Hough et al. (1991) conducted a study in which 245 soldiers completed personality inventories twice in one of the following conditions: (1) Fake good-Honest, (2) Honest-Fake good, (3) Fake bad-Honest, or (4) Honest-Fake bad. Fake good meant answering the questions to try and get into the army. Fake bad meant answering the questions as if trying to avoid getting into the army. The Honest condition meant answering the questions truthfully. These scores were then compared to the scores of army applicants who had recently gone through testing. Hough et al.'s conclusions stated that when instructed, soldiers could distort their scores on the personality inventory. However, comparing the soldiers' scores to the actual applicants' scores showed that the applicants'

scores resembled the scores of the soldiers in the Honest condition. Therefore, Hough et al., concluded that the applicants did not distort their responses.

Similar studies to Hough et. al's have been conducted by Orpen (1971) and Abrahams, Neumann, and Githens (1971) with non-military samples resulting in similar findings. Orpen compared personality scores of applicants for a clerical position to a group of "matched" students who were told to distort their scores. Abrahams et al. compared "true" and "faked" student scores on a vocational interest inventory to actual interest inventory scores taken under normal circumstances. Both Orpen and Abrahams et al. reported that scores can be faked, but comparisons between scores from instructed "true" conditions were virtually identical to scores taken from "normal" testing situations.

One approach that has been taken in the past to deal with intentional distortion on self-report measures is the use of "lie" or "social desirability" scales. These scales include items that indicate the respondent's use of response sets to distort his or her perceived image. Costa and McCrae (1992), however, concluded that the potential benefit gained by including "lie" or "social desirability" scales does not outweigh the interference that can be caused by including such scales. They, therefore, do not recommend their use with the NEO PI-R or NEO-FFI. Tellegen (1985) agrees with this approach and states that "more important than... detection efforts are attempts to establish a relationship of trust and functional collaboration with the respondent" (p. 683).

In line with Tellegen's statement, an effort was made to establish trust with the participants, and to convince them to provide honest, accurate responses for this project. Participants were informed that they were participating in a research project and not a form of employee evaluation. They were also assured of confidentiality at every possible opportunity. The importance of honest, accurate answers was explained to them clearly in the survey instructions. The researcher also met with a portion of the employees to explain the project in person and answer any of their questions. Organizational managers were also

involved showing support for the project and assuring the participants that the individual responses would only be seen by the researcher.

Construct-Related Personality Facets. The personality facet scales used as specific measures of personality were taken from the NEO PI-R long form (see Appendix D). The specific facet scales were impulsiveness (from the more general factor neuroticism), altruism (from the agreeableness factor), and dutifulness (from the conscientiousness factor). Each facet scale consists of eight items and uses the same five-point response scale as the NEO-FFI. Coefficient alphas reported by Costa and McCrae (1992) for each of the facet scales were .70, .75, and .62 for impulsiveness, altruism, and dutifulness, respectively. Being subscales of a broad measure of personality, it is expected that the internal consistency coefficients will be lower than if the scales were developed to measure the facets specifically. Ideally, the coefficient for the dutifulness factor in particular would be higher than it is. However, due to the direct relevance of its items to the non-workrole behaviors of interest (e.g., I try to perform all the tasks assigned to me conscientiously, I'd really have to be sick before I'd miss a day of work), it was included in the questionnaire.

Non-Workrole Behavior As was stated previously, the term non-workrole behavior is used to refer to both work withdrawal and organizational citizenship behaviors. Although conceptually different, the two constructs are similar because they are both peripheral to traditional work performance. The measures of work withdrawal and organizational citizenship behaviors were presented together in the questionnaire to provide balance between the positive and negative nature of the questions (see appendices E and F). There was a total of 41 non-workrole behavior items included in the questionnaire (22 work withdrawal items and 19 organizational citizenship items). There were two sections within the questionnaire where non-workrole items were presented. One section consisted of seven items (five organizational citizenship and two work withdrawal) in a seven-point strongly agree to strongly disagree format. The second section consisted of 34 items (14

organizational citizenship and 20 work withdrawal) presented in a behavioral frequency format from *Never* to *More than once a week.*

Work withdrawal was measured using self-report scales asking the participants about their instances of behavioral and psychological withdrawal. Multiple items were combined across behaviors and cognitions representing the removal of one's self from one's work. Examples of these items include Daydreaming while I should be working, Making excuses to leave the work area, and Taking frequent or long coffee or lunch breaks. Respondents were asked to indicate the frequency of each behavior's occurrence using the following eight-point scale: 1=never, 2=maybe once a year, 3=two or three times a year, 4=nearly every month, 5=about once a month, 6=more than once a month, 7=once a week, and 8=more than once a week.

The work withdrawal items are based on the scales originally used by Roznowski, Miller, and Rosse (1990) as well as by Hanisch and Hulin (1990) and Roznowski and Hanisch (1990). The scales are altered slightly from study to study (or from sample to sample) in order to tailor the behaviors to be relevant to a particular sample and organization. Accordingly, the work withdrawal scale used here included items that relate to jobs in general as well as items that are meant to be related to the jobs included in this specific sample.

Before analyses were conducted using the work withdrawal scale, inter-item correlations and descriptive statistics were examined to evaluate each item's relevance to the scale. Based on this examination, the item *Drinking alcohol or using drugs before coming to work* was removed. The item had a very low item-scale correlation (r = .02) and very little variance (only two of the 313 participants gave a response other than *Never*).

Because of the breadth of behaviors intentionally included in the scale, traditional internal consistency estimates of reliability are expectedly lower than normally found for homogeneous scales. Hanisch and Hulin (1991) have reported coefficient alphas for work

withdrawal scales to be in the range of .51 to .62. Work withdrawal items have also been shown to cluster together through factor analysis and causal modeling (Hanisch & Hulin, 1990; 1991).

Organizational citizenship behavior was assessed using items based on the scale developed by Smith et al. (1983). The negatively worded OCB items from Smith et al.'s measure are more directly related to the work withdrawal construct than to OCB. Therefore, only positively worded items were used in the OCB measure. Also, some of the Smith et al. items reflected behaviors that are considered *work-role* behaviors as opposed to *non-work-role* behaviors. These items were not included.

To be more consistent with the measures of work withdrawal in this study, the items were changed from an objective rater/evaluation point of view to a self-report/frequency of occurrence point of view. That is, the items were altered to match the employee's perspective and to match the frequency response scale that is used in the assessment of work withdrawal. For example, an original OCB item read "Assists me with my duties." It was changed to "assisting my supervisor with his/her duties." Like work withdrawal, the response scale asks participants to indicate how frequently they have engaged in the activity in the last 12 months.

Inter-item correlations and descriptive statistics were examined to evaluate each of the OCB items in the scale. This examination resulted in the removal of two items from the OCB scale. The items were "*I take fewer days off than other employees*" and "*I give advanced notice if I'm unable to come to work.*" These items had low item to total scale correlations (.05 and .13, respectively).

Affective State. Affective state was measured using the Positive and Negative Affect Scales (PANAS; Watson, Clark, & Tellegen, 1988). The PANAS consists of two 10-item scales which measure positive and negative affect (as a state, not a trait). Each scale consists of 10 mood descriptors that represent either positive or negative affect (see Appendix G).

Participants respond to each descriptor using the following five-point scale: 1 = very slightly or not at all, 2 = a little, 3 = moderately, 4 = quite a bit, and 5 = extremely. The PANAS scales were developed to be used with a range of time references from "Moment (you feel this way right now, that is, at the present moment)" to "General (you generally feel this way, that is, how you feel on the average)." Watson et al. (1988) provide reliability and validity information for each of the six time period references. Coefficient alpha for the positive affect scale ranged from .86 to .90. Coefficient alpha for the negative affect scale ranged from .84 to .87.

Validity for the scales has been demonstrated through factor analysis as well as correlations with other measures of mood. Factor analysis demonstrated that the two scales are orthogonal (Watson et al., 1988). Factor loadings for positive affect ranged from .52 to .75. Factor loadings for negative affect ranged from .52 to .74. Correlations with other theoretically similar measures ranged from .50 to .94. Correlations with theoretically dissimilar measures ranged from -.04 to -.43.

The time frame used for the PANAS scales in this study was the "week" distinction. The issue of what time frame to use when measuring mood is difficult because, as the time frame increases, the mood (state) measure becomes more of a trait measure. However, if the time frame is too short, its relevance to behavior that occurs over time becomes questionable. By using a shorter time frame, a case can be made regarding mood at the time of *reporting* behavior. For the purposes of this study, a time specification was necessary so the affective state measure was distinct from personality. Based on this consideration, one week was selected. Other research has also supported this time frame including work by George and her colleagues (1989; Brief, Burke, George, Robinson, & Webster, 1988; George & Bettenhausen, 1990) in past studies of mood and work behavior.

Procedures

Questionnaires were distributed to employees with their paychecks either at the workplace or through the mail. Participation was completely voluntary. Employees also received a letter explaining the purpose of the project, the extent of their expected involvement, an assurance of confidentiality, and a reminder that their participation was voluntary (see Appendix H). A cash lottery was offered as an incentive for the employees to participate. Employees who completed and returned their questionnaire were entered in a drawing for $100. The completed questionnaires were returned via the U.S. Postal Service in pre-paid, pre-addressed envelopes mailed directly to the researcher. This ensured confidentiality because completed questionnaires were never seen by the employees' superiors.

Data Preparation

To ensure the quality of the data, the questionnaires were entered twice; this resulted in two separate data sets. The two data sets were then compared to each other and examined for discrepancies. The assumption was that data entry errors would not produce the same incorrect values in both data sets. Variables in the data sets that showed different values were checked against the original questionnaire and corrected.

Analyses

Structural equation modeling was implemented using LISREL 8 (Jöreskog & Sörbom, 1993) in a two-step modeling procedure (Anderson & Gerbing, 1988). This procedure separately evaluates a measurement model and a structural model. The measurement model links the observed variables to the latent traits. The structural model indicates the relations among the latent traits. Anderson and Gerbing recommend the use of the two-stage modeling procedure because they claim that it provides less biased parameter estimates than a one-step procedure.

In the two-step modeling procedure, the quality of the measurement model is evaluated before the structural model. This allows for a more knowledgeable evaluation regarding the quality of the structural model than would be possible using a one-step procedure. For example, if the fit statistics resulting from a simultaneous analysis suggest a poor model fit, one conclusion might be that the structural model was misspecified. This misspecification would then be attributed to poor theory. An alternative explanation, however, would suggest that the poor quality of measurement in the manifest (measurement) model caused the poor model fit. If the measurement model and the structural model are analyzed in a single step, there is no way of knowing which conclusion is correct. This problem is avoided by using the two-step approach.

It should be noted that estimating the measurement model and structural model separately can give the appearance that the procedures have more statistical power than a one-step procedure because fewer parameters are being estimated in each model. It is important to realize, however, that the same total number of parameters are being estimated in both one-step and two-step procedures. Therefore, the statistical power of the of the entire two-step procedure is not changed relative to a one-step procedure.

Measurement Models. As was stated previously, the structural equation modeling was conducted using two series of nested models. The two series were identical except for the assessment of the personality variables. The first series used the more general personality factors, and the second series used the more specific personality facets. The same procedures were used for testing both series and they are described below.

The measurement model for each series was operationalized by creating three parallel subscales to serve as indicators for each of the latent constructs in the study. The indicators were created by assigning each item from a given scale to one of three subscales to serve as manifest indicators. In order to ensure equality among the three indicators in a given set, consideration was given to the content and response value for each item. Items were

distributed to indicators according to their mean value across all cases. For example, to create three parallel indicators for the agreeableness subscale of the NEO-FFI, the 12 items were listed in descending order based on their mean response values. The list was then divided into three groups (i.e., high group, medium group, and low group) of four items each. The indicators were then created by randomly assigning items to the new subscales from the high, medium, and low response value groups. Because there were 12 items, the distribution of high, medium, and low items was not even. That is, after assigning one item from each category to each new indicator subscale, one high, one medium, and one low item still remained. These items were assigned to subscales with consideration for the values of the items already assigned. An attempt was made to have the final item be in balance with the existing items. For example, if a subscale was assigned the lowest of the low values, it would receive the remaining high value item. Similarly, if a subscale was assigned the highest of the high values, it would receive the remaining low value item. This was done to help ensure an equal distribution of item values within each subscale and ensure the parallel nature of each subscale in the sense of classical test theory.

The procedure of creating three parallel manifest indicators was followed for each of the constructs in the models. However, creation of the general job satisfaction indicators warrants further discussion because of the Job Descriptive Index's (Smith et.al., 1969) multi-factor composition. Because the JDI was being used as a measure of general job satisfaction, each of the five underlying factors needed to be equally represented in each of the indicators. Therefore, the procedure for balancing the responses within each indicator was performed for each of the five subscales. That is, three indicators were created for each of the five job satisfaction subscales and then the five subscale indicators were combined to create one of the three general job satisfaction indicators. Table 2 contains the means, standard deviations, and number of items for each of the manifest indicators. Correlations among the manifest indicators are presented in Appendix I.

The means within each set of manifest indicators were within a range of two or three points of each other. This would suggest that the items within each indicator were grouped successfully to create three equal measures. There were, however, a few exceptions. The sets of indicators where there were not equal numbers of items in each indicator resulted in more discrepant means (e.g., the personality facets and OCB). The indicators of work withdrawal did produce a large discrepancy in means that is not so easily explained. Work withdrawal indicator 1 produced a mean that was approximately seven points higher than the other two indicators. Because of this difference the computation of the scale score was double checked. It appears that the procedure for creating indicators resulted in a coincidental combination of items which produced higher scores on work withdrawal indicator 1.

Assessment of the measurement models was essentially conducted as confirmatory factor analyses. The maximum likelihood estimation procedure was used to estimate the factor loadings for each of the manifest indicators on to its theoretical latent factor. The maximum likelihood method was used because it has been found to have "the desirable asymptotic, or large-sample, properties of being unbiased, consistent, and efficient" (Anderson & Gerbing, 1988, p. 413). Anderson and Gerbing also state that it has been found to be robust against moderate violations of multivariate normality.

The measurement model analyses were conducted using a covariance matrix. Jöreskog and Sörbom (1989) suggest the use of a covariance matrix as a general rule in structural equation modeling because of complications that can be encountered when using a correlation matrix. They cite Cudeck (1989) who claimed that using a correlation matrix as input can produce incorrect χ^2 values. Schumacker and Lomax (1996) also recommend using covariance matrices as input. They conclude that using correlation matrices as input can lead to imprecise values for both the parameter estimates and error estimates. The main

Table 2. Means and Standard Deviations of the Manifest Indicators of the Latent Constructs

Indicator	Mean	Standard Deviation
Neuroticism 1 (4) [a]	9.83	2.75
Neuroticism 2 (4)	11.46	2.70
Neuroticism 3 (4)	11.66	2.63
Agreeableness 1 (4)	15.09	1.99
Agreeableness 2 (4)	15.44	2.14
Agreeableness 3 (4)	16.16	2.20
Conscientiousness 1 (4)	15.89	2.07
Conscientiousness 2 (4)	16.04	2.00
Conscientiousness 3 (4)	16.27	2.14
Impulsiveness 1 (3)	8.20	2.15
Impulsiveness 2 (3)	8.87	1.87
Impulsiveness 3 (2)	7.12	1.20
Altruism 1 (3)	12.41	1.57
Altruism 2 (3)	12.12	1.37
Altruism 3 (2)	8.45	1.11
Dutifulness 1 (3)	12.35	1.53
Dutifulness 2 (3)	12.30	1.65
Dutifulness 3 (2)	8.10	1.50
Positive Affect 1 (4)	13.61	2.82
Positive Affect2 (3)	10.11	2.19
Positive Affect 3 (3)	10.04	2.14
Negative Affect 1 (4)	7.17	2.59
Negative Affect 2 (3)	5.19	1.80
Negative Affect 3 (3)	5.08	1.99
Job Satisfaction 1 (24)	49.08	11.95
Job Satisfaction 2 (24)	48.92	12.00
Job Satisfaction 3 (24)	49.64	12.86
Work Withdrawal 1 (7)	22.69	5.73
Work Withdrawal 2 (7)	15.54	5.88
Work Withdrawal 3 (7)	15.49	5.97
Organizational Citizenship Behavior 1 (6)	32.19	6.02
Organizational Citizenship Behavior 2 (6)	34.88	7.13
Organizational Citizenship Behavior 3 (5)	25.13	4.73

$N = 313$.

[a] The number of items in each subscale is presented in parentheses.

drawback to using a covariance matrix is the resulting difficulty of interpreting parameter values that are dependent on the format of the measurement scale. The covariance matrix used in the personality factor analyses is provided in Appendix J. The covariance matrix used in the personality facet analyses is provided in Appendix K.

CHAPTER 5: RESULTS

The means, standard deviations, correlations, and reliabilities for all of the variables of interest to the study are presented in Table 4. The coefficient alphas for the work withdrawal and OCB scales were .81 and .83 respectively. These were somewhat higher than expected given the intentional strategy of incorporating the breadth of behaviors that can comprise a behavioral family. However, it suggests that the behaviors are internally consistent and good representations of the constructs. The reliability estimate for the job satisfaction measure was, as expected, very good (r = .94). The personality factor scales reliability values were .79, .71, and .78 for neuroticism, agreeableness, and conscientiousness, respectively. The personality facet scales produced the lowest reliability estimates. The coefficient alphas were .63, .64, and .55 for impulsiveness, altruism, and dutifulness, respectively. These lower values were expected based on the reliability estimates reported by the scales' authors (Costa & McCrae, 1992) and the small number of items in each scale. The values, however, are disappointing and may influence the confidence with which conclusions can be made about the personality facets. Finally, the reliabilities for positive and negative affect were .87 and .83, respectively.

Several of the correlations presented in the correlation table are worth noting. First is the non-significant correlation (all significance tests in this study used an alpha level of .05) between work withdrawal and OCB (r = .06). This provides support for conceptualizing work withdrawal and OCB as separate constructs. If they were opposite ends of a single construct, they would be expected to have a significant negative relationship.

Consistent with the proposed hypotheses, work withdrawal was significantly correlated (both statistically and practically) with neuroticism, conscientiousness, impulsiveness, dutifulness, job satisfaction, and negative affect. Inconsistent with the hypotheses, however, is the fact that work withdrawal was also significantly correlated (negatively) with agreeableness, altruism, and positive affect.

Table 4. Descriptive Statistics and Correlations Among Variables

	M	SD	1	2	3	4	5	6	7
1. Full Time/Part Time									
2. Sex			-.01*						
3. Marital Status			.08*	.08*					
4. Age			-.16	-.05*	.14				
5. Education			-.20	-.04*	-.19	-.08*			
6. Salary			-.28	-.27	-.11*	.14	.41		
7. Withdrawal (21)	49.16	14.87	-.18	.04*	-.18	-.25	.18	.09*	**.81**
8. Citizenship (17)	93.90	15.01	-.13	.05*	.05*	-.01*	.06*	.14	-.06*
9. Job Satisfaction (72)	147.64	35.23	.11*	-.06*	.02*	.12	.03*	.13	-.29
10. Neuroticism (12)	31.96	6.84	-.09*	.15	-.05*	-.21	-.09*	-.20	.40
11. Agreeableness (12)	46.69	5.05	.06*	.07*	.01*	.14	.04*	-.01*	-.37
12. Conscientiousness (12)	48.20	5.20	.08*	.02*	.11*	.11*	-.05*	.03*	-.49
13. Impulsiveness (8)	22.96	4.01	-.08*	.12	-.11*	-.12	-.01*	-.12	.32
14. Altruism (8)	32.98	3.21	.11*	-.01*	.06*	.01*	.03*	-.05*	-.31
15. Dutiful (8)	32.75	3.43	-.01*	.03*	.07*	.33	.07*	.05*	-.42
16. Positive Affect (10)	33.76	6.38	.03*	-.01*	.14	.15	.07*	.10*	-.30
17. Negative Affect (10)	17.44	5.62	-.02*	.02*	-.04*	-.25	-.04*	-.14	.27

Note: The number of items in each scale is presented in parentheses in the first column. Reliabilities appear in bold on the diagonal. * indicates non-significance ($p > .05$). N = 313.

Table 4. (Continued)

	8	9	10	11	12	13	14	15	16	17
1. Full Time/Part Time										
2. Sex										
3. Marital Status										
4. Age										
5. Education										
6. Salary										
7. Withdrawal (21)										
8. Citizenship (17)	**.83**									
9. Job Satisfaction (72)	.11	**.94**								
10. Neuroticism (12)	-.17	-.35	**.79**							
11. Agreeableness (12)	.14	.32	-.36	**.71**						
12. Conscientiousness (12)	.28	.08*	-.43	.27	**.78**					
13. Impulsiveness (8)	-.14	-.16	.49	-.25	-.27	**.63**				
14. Altruism (8)	.26	.16	-.25	.65	.34	-.09*	**.64**			
15. Dutiful (8)	.22	.12	-.39	.29	.62	-.22	.32	**.55**		
16. Positive Affect (10)	.30	.42	-.37	.22	.37	-.17	.26	.32	**.87**	
17. Negative Affect (10)	.01*	-.29	.54	-.34	-.30	.18	-.21	-.25	-.29	**.83**

Note: The number of items in each scale is presented in parentheses in the first column. Reliabilities appear in bold on the diagonal.
* indicates non-significance ($p > .05$). N = 313.

Similar to work withdrawal, OCB was also significantly correlated with the hypothesized variables. There were also, however, significant correlations with variables that were hypothesized to not be related to OCB (e.g., neuroticism and impulsiveness). One surprising relation was the low correlation between job satisfaction and OCB (r = .11). Although it is statistically significant, it is considerably lower than the correlations reported in the literature which often range from .20 to .50 (see Fisher & Locke, 1992).

Correlations among the affect and personality variables ranged from .17 to .54 in absolute values. The personality variables most strongly correlated with positive affect was neuroticism (r = -.37) and conscientiousness (r = .37). The personality variable least strongly correlated with positive affect was impulsiveness (r = -.17). This is of special interest given that impulsiveness is a subfactor of neuroticism. Therefore, they were expected to be have similar relations.

The personality variable most strongly related to negative affect was neuroticism (r = .54). Interestingly, the personality variable least strongly correlated with negative affect was impulsiveness. This correlation suggests that neuroticism and affect are similar constructs and may not be as distinct as has been implied in the literature.

Series 1.

The results from analyzing the models in series 1 (the models using personality *factors*) will be presented first. Factor loadings and error estimates for the indicators in the measurement model are presented in Table 5. Because a covariance matrix was used for the analyses, the unstandardized estimates are difficult to interpret due to their being dependent on non-standardized scale scores. Both standardized and unstandardized estimates are provided to document the non-standardized values. The standardized estimates are interpreted as the correlations between the manifest indicators and their latent variables. Squaring the standardized estimate provides the amount of variance accounted for by the indicator. The standardized error estimate is then equal to one minus the variance accounted

Table 5. Factor Loadings for Manifest Variables in Measurement Model For Series 1

Constructs and Indicators	Unstandardized ML Estimate	Unstandardized Error Estimate	Standardized ML Estimate	Standardized Error Estimate
Work Withdrawal				
WW1	1.00	17.31	.69	.53
WW2	1.31	7.98	.88	.23
WW3	1.19	13.73	.78	.39
Organizational Citizenship Behavior				
OCB1	1.00	8.35	.88	.23
OCB2	.96	25.26	.71	.50
OCB3	.70	8.63	.78	.39
Neuroticism				
Neurot1	1.00	3.00	.78	.40
Neurot2	.94	3.25	.74	.45
Neurot3	.84	3.63	.69	.53
Agreeableness				
Agree1	1.00	1.87	.56	.69
Agree2	1.86	3.24	.69	.52
Agree3	1.80	2.11	.75	.43
Conscientiousness				
Consc1	1.00	2.09	.72	.49
Consc2	1.00	1.80	.74	.45
Consc3	1.11	1.84	.77	.40
Positive Affect				
PosAff1	1.00	2.14	.85	.27
PosAff2	.75	1.59	.82	.33
PosAff3	.73	1.53	.82	.33
Negative Affect				
NegAff1	1.00	2.08	.83	.31
NegAff2	.66	1.25	.78	.39
NegAff3	.75	1.35	.81	.34
Job Satisfaction				
JobSat1	1.00	19.89	.93	.14
JobSat2	1.03	14.06	.95	.10
JobSat3	1.07	23.40	.93	.14

Note: N = 313
All values significant $p < .05$

for. That is, the standardized error estimate is the amount of variance in the manifest indicator not accounted for by the latent factor.

The factor loadings and estimates presented are consistent with other indications of the psychometric quality of the measures. The best factor loadings are those produced by the indicators of job satisfaction. All three indicators produced standardized estimates above .90. The worst factor loadings in the model are associated with the personality factor indicators. Their standardized values ranged from .56 to .78. All of the factor loadings shown in Table 5 were significant at the $p < .05$ level

Goodness-of-fit indices for the models tested in series 1 are presented in Table 6. The measurement model produced satisfactory indices of fit. The χ^2/df ratio was 2.24 which is considered acceptable (Schumacker & Lomax, 1996). The GFI of .88 is also considered to be acceptable. Normal convention suggests GFI values of .90 or above indicate a good fit. Given that .90 is a convention and not a strict criterion, the value of .88 was determined to be acceptable. The AGFI was .84 which was also considered to be adequate. Authors have suggested that AGFI values of .80 or better are usually an indication of acceptable fit (Pedhauzer & Schmelkin, 1991). The standardized RMSR value was .07. A value of .05 is generally considered acceptable (Schumacker & Lomax, 1996). These indices are consistent in the fact that they all are considered satisfactory.

As was stated previously, the measurement model was estimated first to allow for the separate evaluation of the measurement and structural models. After estimating the measurement model, the covariance in the measurement models were, in effect, held stable. This allows for the testing of the structural model as a regression procedure, only using latent variables. Therefore, the path coefficients in the structural model can be interpreted as similar to the standardized regression coefficients for the latent variables.

The next step in the analysis consisted of using the unstandardized factor loadings produced in the measurement model to estimate the latent structural models. The

first model tested was the null model. It included no causal paths but allowed for each of the independent variables to be correlated (see Figure 10). Fit indices for this model are provided in Table 6. The χ^2/df ratio for Model 1 was 2.42. The main purpose of this model is to provide a baseline to which fit indices from subsequent models can be compared. As expected, Model 1 was the worst-fitting model tested. It produced the lowest GFI and AGFI of all models tested (.85 and .84 respectively). It also produced the largest RMSR value(.13) of all models tested. Allowing the endogenous variables to correlate is supported by the relatively high correlations among them. Only conscientiousness and job satisfaction were correlated below .25 in absolute value.

Table 6. Goodness-of-Fit Indices for Measurement and Structural Models in Series 1.

Model	χ^2	df	χ^2/df	GFI	AGFI	RMSR
Measurement	501.13	224	2.24	.88	.84	.07
Model 1	670.26	277	2.42	.85	.84	.13
Model 2	646.26	275	2.35	.86	.84	.11
Model 3	613.82	273	2.25	.86	.85	.09
Model 4	547.75	269	2.03	.87	.86	.08

In Model 2, causal paths from job satisfaction to work withdrawal and OCB were estimated (see Figure 11). This produced a statistically significant drop in χ^2 from 670.26 to 646.26, $\Delta\chi^2$ $(2, N = 313) = 24, p < .05$. Other fit indices also improved but would still not be considered to demonstrate a good fit. The χ^2/df ratio for Model 2 was 2.35. The GFI and AGFI were .86 and .84, respectively, and the RMSR was .11. The path coefficients were -.30 ($p < .05$) for job satisfaction to work withdrawal and .05 for job satisfaction to OCB ($p >$ .05). The lack of significance for the path between job satisfaction and OCB was unexpected and contrary to the hypothesized relationship. The squared multiple correlations for the structural equations were .09 and 0.00 for work withdrawal and OCB, respectively. In other words, job satisfaction accounts for nine percent of the variance in work withdrawal and none of the variance in OCB.

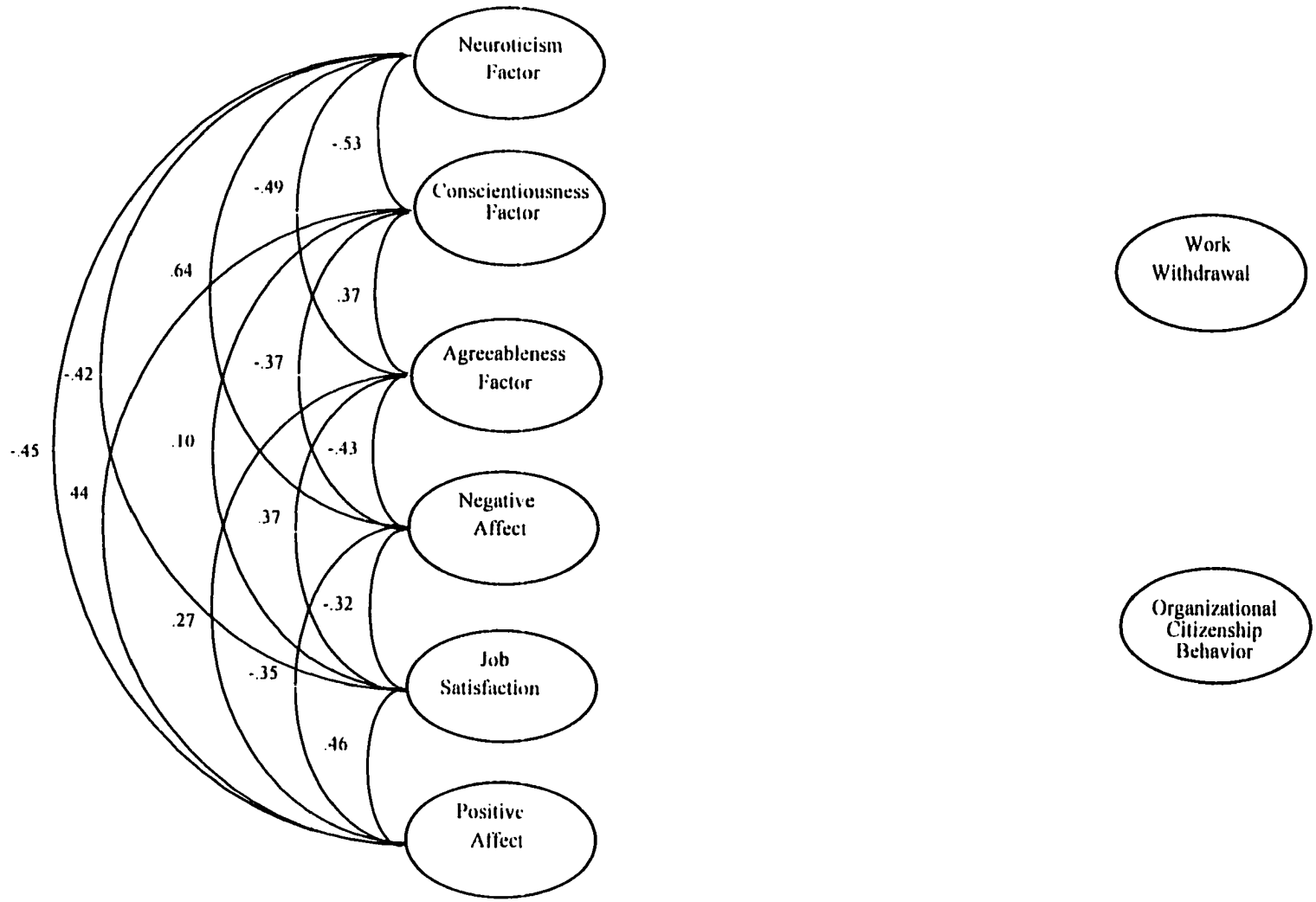


Figure 10. Model 1: The Null Model For Series 1.

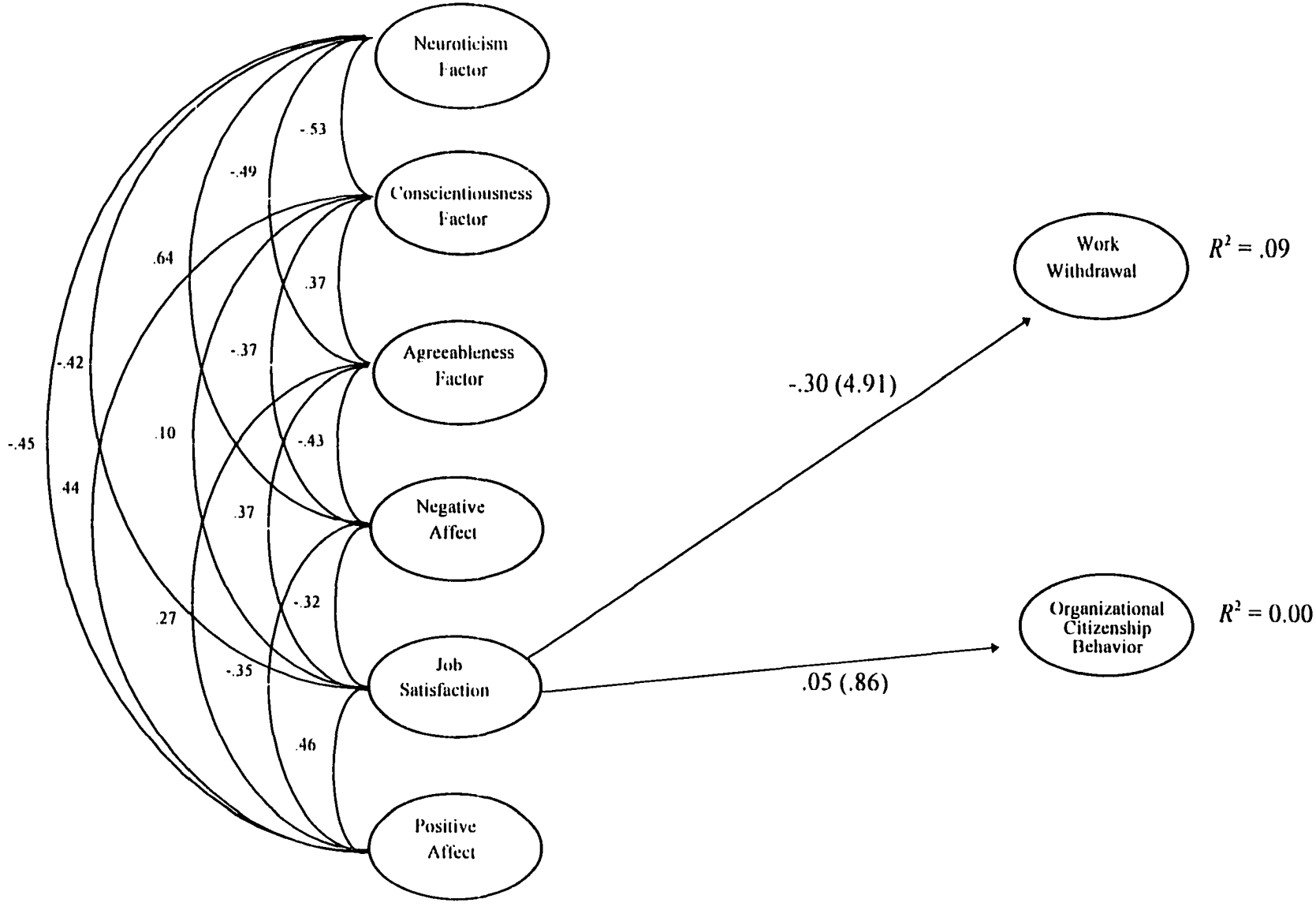


Figure 11. Model 2 for Series 1: Showing the causal relationship of job satisfaction on work withdrawal and OCB. Completely standardized path coefficients are shown with t-values in parentheses.

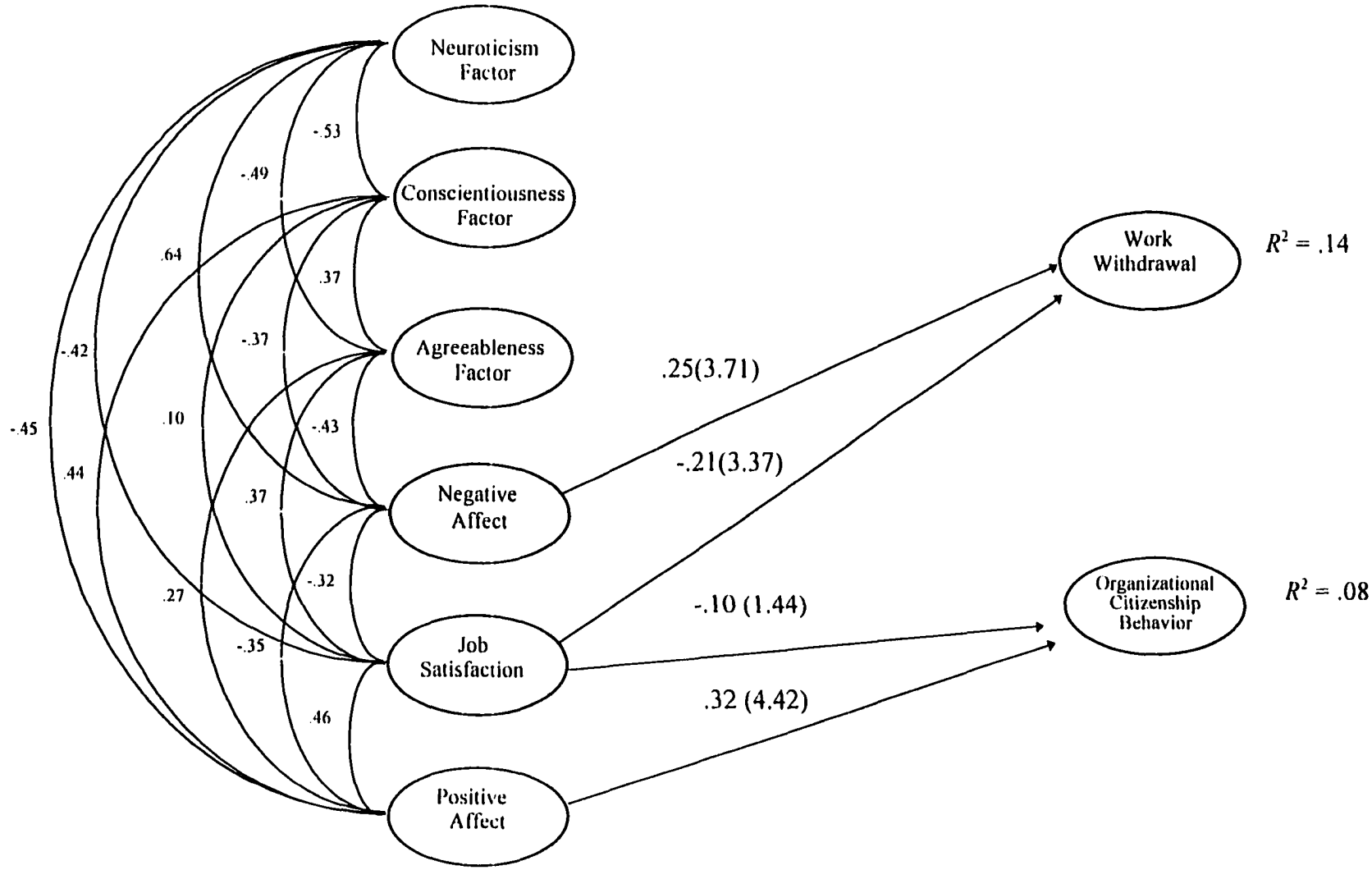


Figure 12. Model 3 for Series 1: Positive and negative affect causal paths. Completely standardized path coefficients are shown with t-values in parentheses.

The additional paths freed in Model 3 were from positive affect to OCB and from negative affect to work withdrawal (see Figure 12). The path from job satisfaction to OCB continued to be not statistically significant. From Model 2 to Model 3, there was an expected drop in χ^2 from 646.26 to 613.82. The change was statistically significant $\Delta\chi^2$ (2, $N = 313$) = 32.44, $p < .05$. The fit indices also improved as expected. The χ^2/df ratio for Model 3 was 2.25. The GFI did not change from Model 2 and remained at .86. The AGFI did, however, move up to .85 and the RMSR was reduced to .09 from .11. There was also an expected improvement in the squared multiple correlations. Variance accounted for increased by .05 for work withdrawal from Model 2 ($R^2 = .14$) and by .08 for OCB ($R^2 = .08$).

The final model tested in series 1 freed the following paths: 1) neuroticism to work withdrawal, 2) conscientiousness to both work withdrawal and OCB, and 3) agreeableness to OCB. Figure 13 shows the model with the resulting path coefficients. The paths from conscientiousness and job satisfaction to work withdrawal and the path from positive affect to OCB were statistically significant. The remaining paths were not.

The lack of significance for neuroticism and agreeableness was inconsistent with the hypotheses. One possible explanation may be found by examining the correlations between neuroticism, agreeableness, and affect. Neuroticism is correlated .64 with negative affect. Neither of them resulted in a significant effect on work withdrawal in Model 4. Negative affect, however did have a significant effect on work withdrawal in Model 3. The high correlation between the two variables and the influence of negative affect changing to non-significant suggests that the two predictors may be competing for criterion variance. As a result, neither of them reach significance. A similar situation may exist for agreeableness and positive affect. They were correlated .27. While positive affect did produce a significant effect in Model 4, it was reduced from .32 in Model 3 to .28. This too, could suggest that agreeableness is unable to predict beyond what is already accounted for by positive affect.

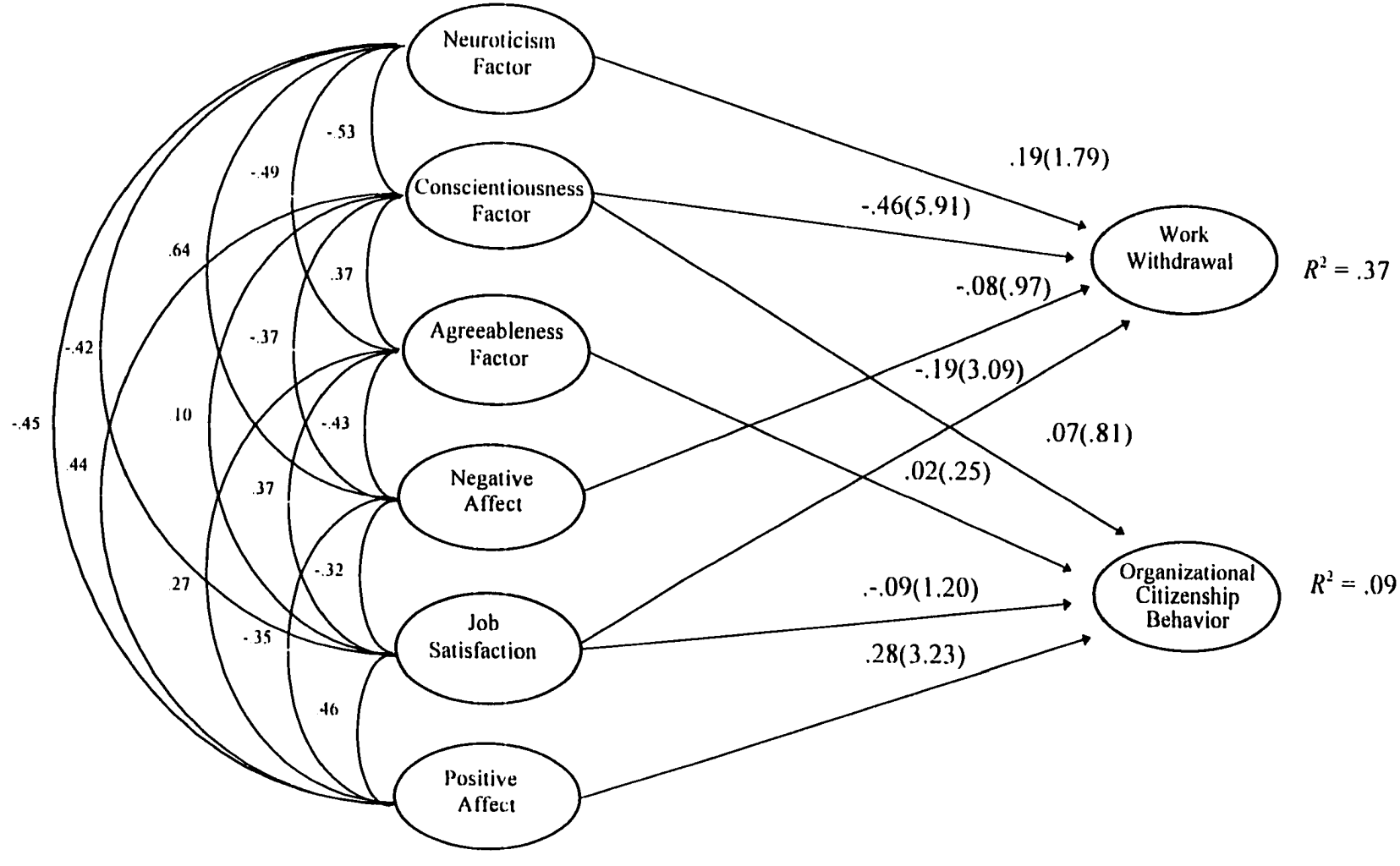


Figure 13. Model 4 for Series 1: Personality Factors. Completely standardized path coefficients are shown with t-values in parentheses.

This model produced the largest drop in χ^2 for the four models tested in the personality factor series. Once again, the model improvement produced a statistically significant change in χ^2; $\Delta\chi^2$ $(4, N = 313) = 66.07, p < .05$. The χ^2 for this model was 547.75 with 269 degrees of freedom. This resulted in a χ^2/df ratio of 2.03. The GFI was .87 and the AGFI was .86. The RMSR was .08. The squared multiple correlations for the structural equations in this model were .37 and .09 for work withdrawal and OCB, respectively.

The fit indices indicate a good fit for the final model of this series. Although the χ^2 value was statistically significant for all of the models tested, this is to be expected given the size of the sample (Schumacker & Lomax, 1996). The important result of testing the series of models is the incremental improvements realized from one model to the next. The improvements were consistent with the proposed relationships and established the additional contributions of each of the sets of variables.

The second series of models tested followed the same procedures as the first. The only difference was in the measurement of the personality variables included in the models. Instead of using the personality *factors* of neuroticism, agreeableness, and conscientiousness, the personality *facets* of impulsiveness, altruism, and dutifulness were used in their places. The goodness-of-fit indices for the models tested in series two are presented in Table 7.

The measurement model for this series produced a satisfactory level of fit. The χ^2 with 224 degrees of freedom was 462.08 which resulted in a χ^2/ df ratio of 2.06. The GFI was .89 and the AGFI was .86. The standardized RMSR was .06.

Table 7. Goodness-of-Fit Indices for Measurement and Structural Models in Series 2.

Model	χ^2	df	χ^2/df	GFI	AGFI	RMSR
Measurement	462.08	224	2.06	.89	.86	.06
Model 1	620.43	277	2.24	.87	.86	.12
Model 2	596.51	275	2.17	.87	.86	.10
Model 3	566.78	273	2.08	.87	.86	.09
Model 4	495.53	269	1.84	.88	.87	.07

The factor loadings produced for the measurement model from series two are presented in Table 8. All of the factor loadings for the model were significant at the $p < .05$ level. Again, the best factor loadings are those produced by the indicators of job satisfaction. All three indicators produced standardized estimates above .90. The weakest factor loadings in the model are associated with the personality indicators. The standardized values for the personality facets ranged from .46 to .84.

Similar to the first series of models, the first structural model tested was a model with no causal paths (see Figure 14). Only the correlations among the independent variables were allowed to be estimated. The results produced a χ^2 of 620.43 with 277 degrees of freedom. This provided a χ^2/ df ratio of 2.24, a GFI of .87, an AGFI of .86, and a RMSR of .12. This was, as expected, the worst-fitting model of the series.

The second model included the causal paths from job satisfaction to work withdrawal and OCB. It expectedly produced a statistically significant decrease in the chi-square ($\Delta\chi^2$ (2, $N = 313$) = 23.92, $p < .05$) from Model 1. The chi-square value of 596.51 resulted in a χ^2/ df ratio of 2.17. The GFI and AGFI did not change from Model 1 and remained at .87 and .86, respectively. The RMSR did improve from .12 to .10. The squared multiple correlation for the structural equations were the same as reported in the first series for this model ($R^2 = .09$ for work withdrawal and $R^2 = 0.00$ for OCB).

Structural model estimates for Model 2 are presented in Figure 15. The path coefficient for job satisfaction to work withdrawal was -.29 ($p < .05$) and was statistically significant as expected. The path coefficient for job satisfaction to OCB was .05 and was not statistically significant. As was stated in the first series of models, this was an unexpected result. Job satisfaction was hypothesized to be significantly related to OCB.

In addition to freeing the job satisfaction paths shown in Model 2, Model 3 also estimated the causal paths from positive affect to OCB and from negative affect to work withdrawal.

Table 8. Factor Loadings for Manifest Variables in Model Series 2

Constructs and Indicators	Unstandardized ML Estimate	Unstandardized Error Estimate	Standardized ML Estimate	Standardized Error Estimate
Work Withdrawal				
WW1	1.00	17.82	.68	.54
WW2	1.36	6.86	.90	.20
WW3	1.19	14.27	.77	.40
Organizational Citizenship Behavior				
OCB1	1.00	8.04	.88	.22
OCB2	.95	25.40	.71	.50
OCB3	.70	8.78	.78	.39
Impulsiveness				
Imp1	1.00	1.39	.62	.62
Imp2	1.68	1.04	.84	.30
Imp3	.79	1.98	.46	.78
Altruism				
Alt1	1.00	1.48	.63	.60
Alt2	.96	.99	.69	.52
Alt3	.74	.70	.66	.57
Dutifulness				
Dut1	1.00	1.50	.60	.64
Dut2	.93	1.99	.52	.73
Dut3	.88	1.60	.54	.71
Positive Affect				
PosAff1	1.00	1.97	.87	.25
PosAff2	.73	1.64	.81	.34
PosAff3	.71	1.60	.81	.35
Negative Affect				
NegAff1	1.00	2.07	.83	.31
NegAff2	.65	1.27	.78	.39
NegAff3	.75	1.33	.81	.34
Job Satisfaction				
JobSat1	1.00	20.00	.93	.14
JobSat2	1.03	13.93	.95	.10
JobSat3	1.07	23.44	.93	.14

Note: N = 313
All values significant $p < .05$

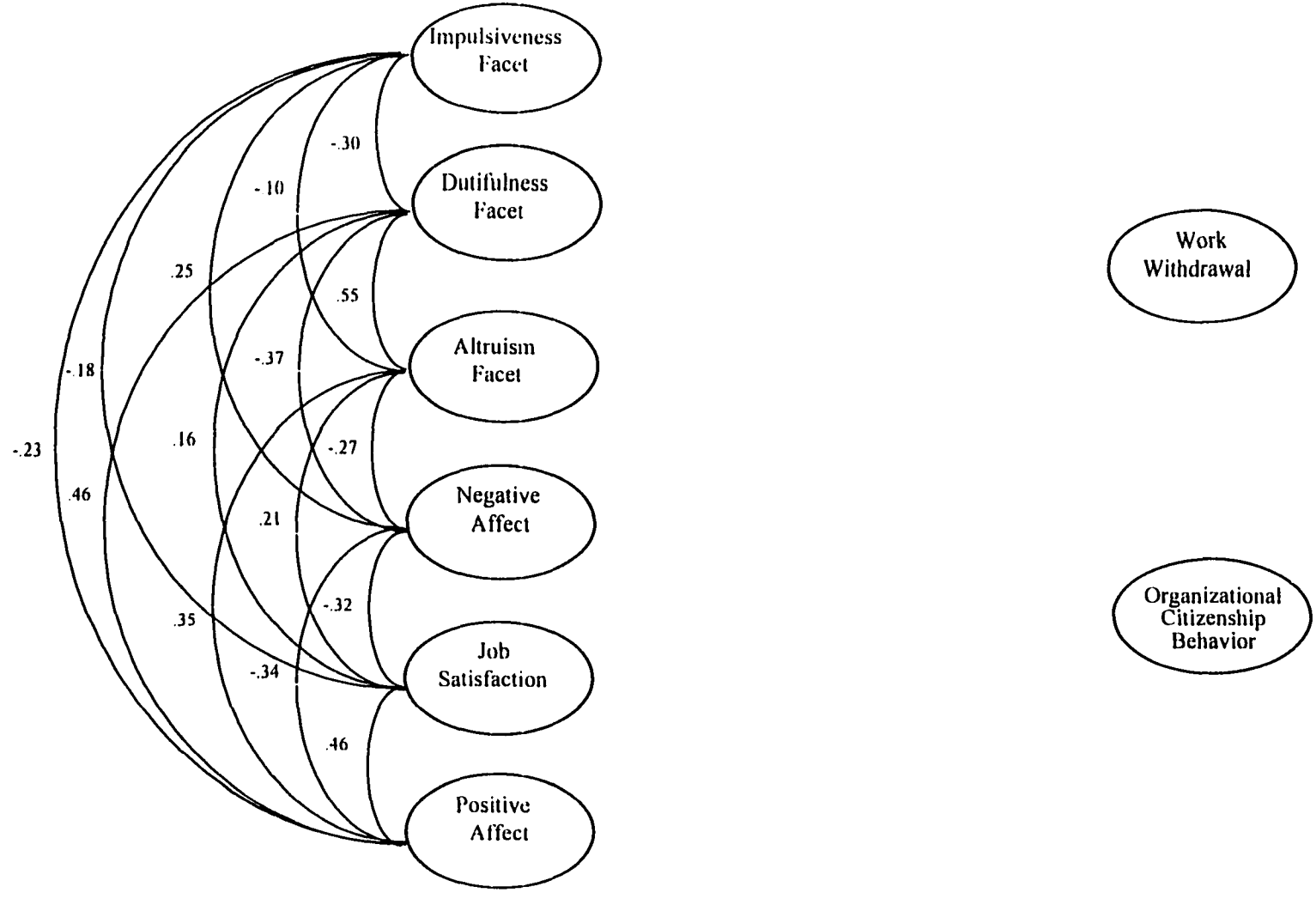


Figure 14. Model 1: The Null Model for Series 2.

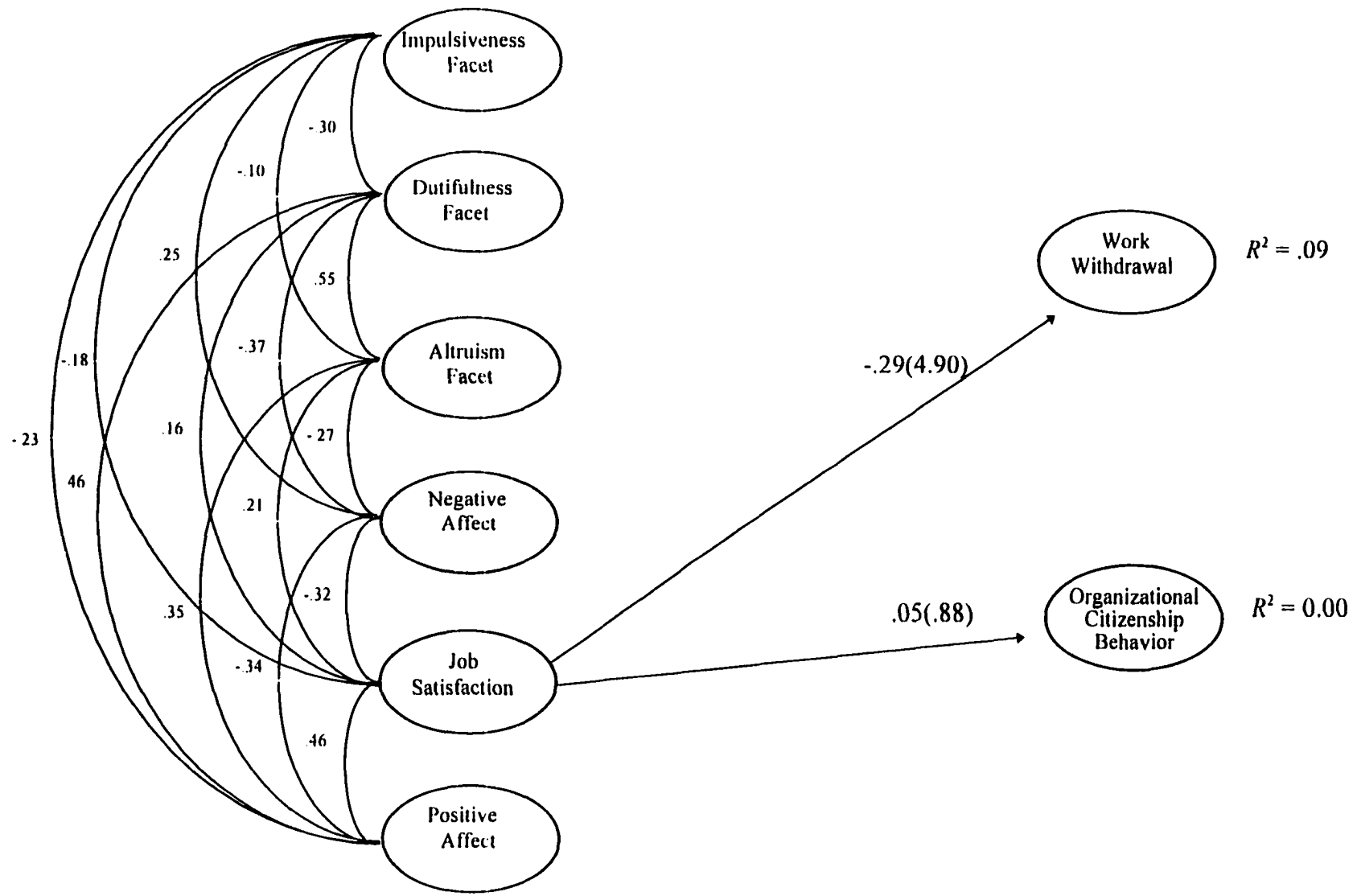


Figure 15. Model 2 for Series 2: Showing the causal relationship of job satisfaction on work withdrawal and OCB. Completely standardized path coefficients are shown with t-values in parentheses.

As expected, Model 3 produced a decrease in chi-square that was statistically significant, $\Delta\chi^2$ (2, $N = 313$) = 29.73, $p < .05$. This better-fitting model produced a χ^2/ df ratio of 2.08. The GFI and AGFI values did not change from Model 2 and were .87 and .86, respectively. The RMSR did decrease to a value of .09 from .10. The improvement in the variance accounted for is very similar to Model 3 in the first series of models ($R^2 = .13$ and $R^2 = .08$ for work withdrawal and OCB, respectively).

The paths and path coefficients for Model 3 are shown in Figure 16. Like in Model 2, the relationship between job satisfaction and work withdrawal was significant while the relationship between job satisfaction and OCB was not. However, comparing the coefficient values associated with these relationships in Model 2 and Model 3 reveals that the job satisfaction - work withdrawal coefficient decreased from -.29 to -.22 and the job satisfaction - OCB coefficient changed signs and decreased from .05 to -.10. The path coefficient from negative affect to work withdrawal was .22 ($p < .05$). The path coefficient from positive affect to OCB was .32 ($p < .05$). The affect results were consistent with the hypothesis suggesting that individuals' affect level will influence the frequency of non-workrole behaviors.

Finally, Model 4, which was the model hypothesized to have the best fit was tested. It freed the paths from impulsiveness to work withdrawal, dutifulness to both work withdrawal and OCB, and from altruism to OCB. Freeing these paths produced an expected change in chi-square that was statistically significant ($\Delta\chi^2$ (4, $N = 313$) = 71.25, $p < .05$). Also, the resulting fit indices were the best of all models tested in either series. The χ^2/ df ratio dropped below 2.0 to 1.84. The GFI and AGFI increased from .87 to .88 and from .86 to .87, respectively, and the RMSR dropped to from .09 to .07. The amount of criterion variance accounted for in this model is the highest of all eight models tested. The squared multiple correlations were.43 and.16 for work withdrawal and OCB, respectively.

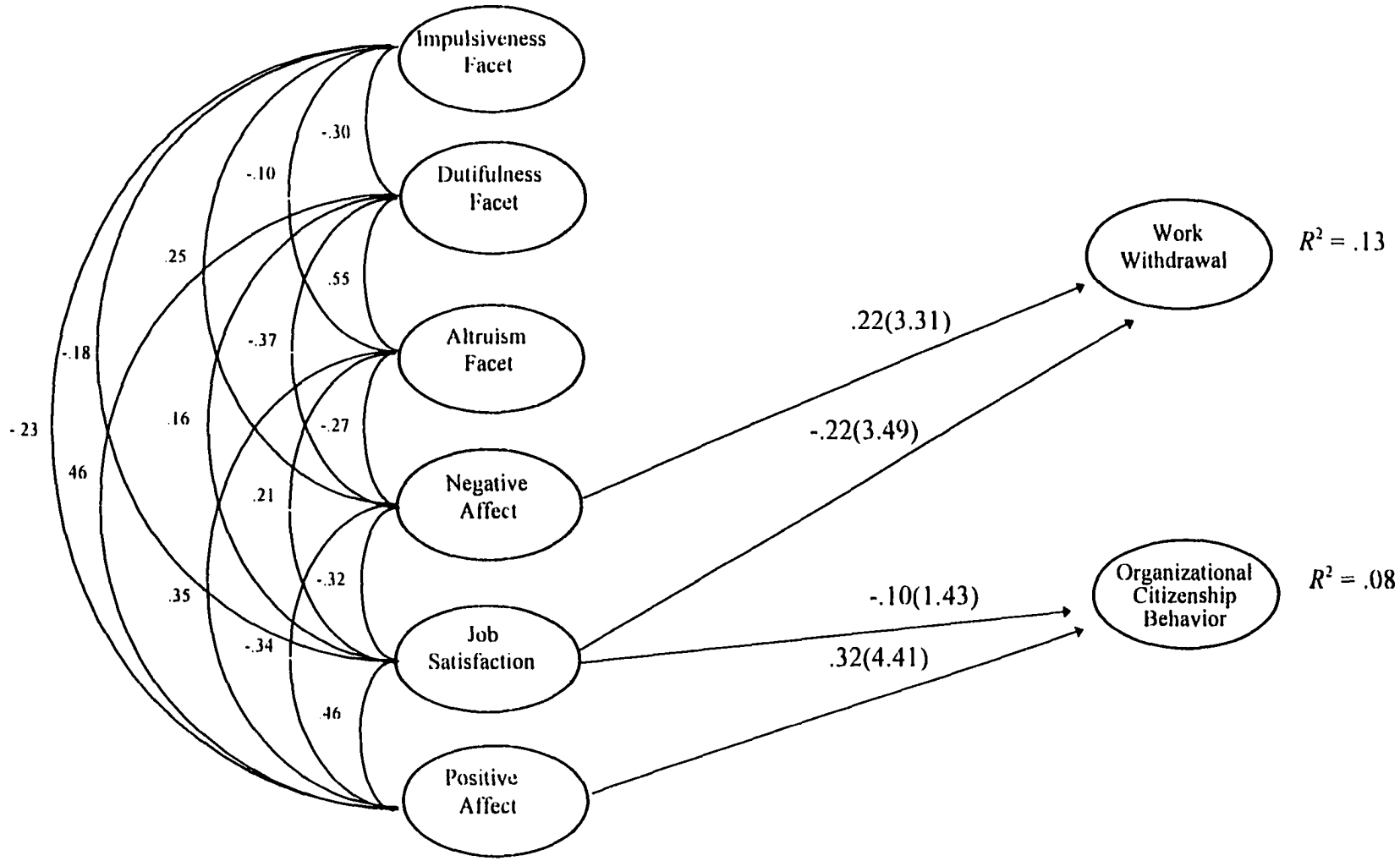


Figure 16. Model 3 for Series 2: Positive and negative affect causal paths. Completely standardized path coefficients are shown with t-values in parentheses.

The path coefficients for Model 4 are shown in Figure 17. All of the paths except the path from negative affect to work withdrawal and the path from job satisfaction to OCB were statistically significant. Therefore, the results generally support the hypotheses. One exception is the relationship between job satisfaction and OCB. This relationship was consistently disappointing across all of the models tested. The path from dutifulness to OCB was significant, but the coefficient was negative instead of positive as hypothesized. Another exception was the path from negative affect to work withdrawal; it was not significant in this model. This path was, however, significant in Model 3. This would suggest that negative affect is sharing variance with one or more of the personality facets entered in Model 4. Examination of the correlations between negative affect and the personality facets reveals a correlation of .25 between negative affect and impulsiveness. This likely indicates that work withdrawal variance predicted by negative affect in Model 3 is now being predicted by impulsiveness in Model 4.

Similar to the first series, the incremental improvements in each successive model in this series indicate support for the hypothesized relationships. Overall, the results of the second series of models were superior to the results of the first series. The path coefficients were of greater absolute value, and more paths were as statistically significant. The total variance accounted for in the criterion variables was also higher than in the first series of models. The first series of models produced final variance accounted for statistics of $R^2 = .37$ and $R^2 = .09$ for work withdrawal and OCB, respectively. The second series of models resulted in R^2 values of .43 and .16 for work withdrawal and OCB, respectively.

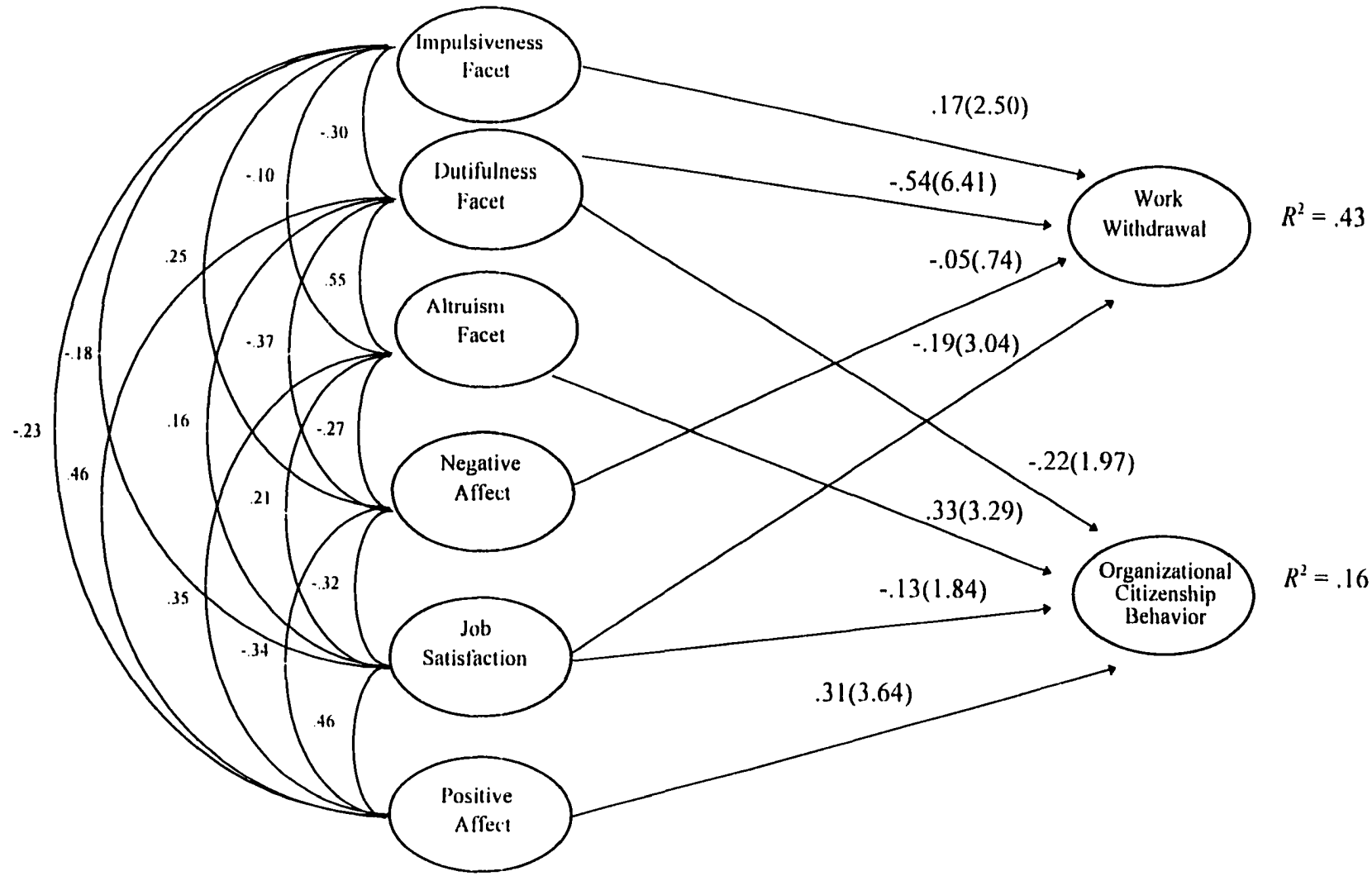


Figure 17. Model 4 for Series 2: Personality facets Completely standardized path coefficients are shown with t-values in parentheses.

CHAPTER 6: DISCUSSION

This study has contributed to the areas of personality, job satisfaction, organizational citizenship, and organizational withdrawal research by providing a unified, multivariate examination of the affects of job satisfaction, positive and negative affect, and criterion-related measures of personality on broadly-measured constructs of employee behavior labeled here as non-workrole behaviors. Previous studies of personality and organizational outcomes such as employee performance, turnover, and/or absenteeism have suffered from various methodological problems. This study has attempted to avoid the errors of previous studies by using generally accepted measures of personality and job satisfaction as independent variables. It also evaluated a broader and more appropriate measure of the dependent variables than previous studies have used.

The main hypotheses for this study centered around the contributions of personality to the prediction of work withdrawal and OCB. Past studies examining the effects of personality on employee behavior have used conceptualizations of personality other than what is currently accepted in the five-factor theory of personality. By conceptualizing personality in terms of the five-factor model, this study brings non-workrole behavior into the same area of focus as has recently been the case with personality and traditional work performance (e.g., Barrick & Mount, 1991; Schneider & Hough, 1995; Tett, Jackson, & Rothstein, 1991). This study has also attempted to bring together what have typically been separate lines of research. Many studies have examined subsets of what is presented here, but none have addressed them simultaneously in a single model. That is, studies have examined job satisfaction and absenteeism or job satisfaction and OCB. Studies have also examined the relationship of personality to these constructs. There have not, however, been studies that have addressed them all in a single framework.

The general findings from the final models tested in both series suggest that personality, affect, and job satisfaction have an important role in the prediction of non-

workrole behaviors. Examination of multiple fit indices provides a consistent indication of adequate fit of the hypothesized models. More importantly, when the models within each series are compared, the results are consistent with the hypotheses which expected an increase in model fit statistics as each of the theoretical constructs was added to the models. The chi-square values decreased by statistically significant amounts as the models were built from job satisfaction only, to job satisfaction and affective state, and finally to job satisfaction, affective state, and personality.

Within each of the models, the patterns of path coefficients provide more specific information about the relationships between the variables modeled in each series. Therefore, the individual relationships of each of the variables represented in the models are addressed below.

Job Satisfaction

As expected, job satisfaction did have a negative relationship with work withdrawal. The strength of the relationship, however, decreased somewhat as affect and personality variables were added to the model. This indicates that job satisfaction shares variance to some extent with affective state and the various forms of personality. The substantial correlations between job satisfaction and several of the affect and personality variables also supports this finding. Neuroticism, agreeableness, positive affect, and negative affect produced correlations with job satisfaction that ranged from .29 to .42 in absolute value (see Table 4).

The correlation between job satisfaction and positive affect was .42. The correlation between job satisfaction and negative affect was -.29. When affect was added to the model, the path coefficient for the path from job satisfaction to work withdrawal decreased from -.30 to -.21 in the first series of models and from -.29 to -.22 in the second series of models. However, both job satisfaction and positive and negative affect still produced significant structural paths to work withdrawal. This suggests that, although related, job satisfaction and

affect are each making unique contributions to the prediction of work withdrawal. This finding also provides some support for Brief and Roberson's (1989) claim that traditional measures of job satisfaction such as the JDI are focused on cognitive considerations of satisfaction and do not include an emotional or affective element that, according to the data presented here, also contributes to the determination of employees' non-workrole behaviors.

The next components added to the model were the personality factors. The addition of the personality factors in series 1 resulted in conscientiousness showing a strong relationship to work withdrawal behaviors (-.46). While adding personality factors resulted in a large increase in the variance accounted for in work withdrawal ($\Delta R^2 = .23$), the path coefficient between job satisfaction and work withdrawal remained approximately the same (the value changed from -.21 to -.19). This suggests that personality, specifically conscientiousness, plays an important role in the prediction of work withdrawal behavior.

These results have important implications for future research in job satisfaction and organizational withdrawal. The most important implication is the importance of individual differences in organizational withdrawal theory. Individual differences have been conspicuously absent from the most popular theories of organizational withdrawal. For example, Hulin's model of organizational withdrawal, which was presented in Figure 1, considers many internal and external antecedents of withdrawal such as individual skills and economic conditions. It does not, however, include any consideration of individuals' personality. The path coefficient of -.46 from conscientiousness to work withdrawal is strong evidence of the part that personality plays in the determination of work withdrawal behaviors.

Job satisfaction was also hypothesized to be related to OCB. The results however did not support this hypothesis. The path from job satisfaction to OCB in Model 2 in both series of models was only .05. Similarly, the zero-order correlation for general job satisfaction and OCB in this study was only .11 ($p < .05$). Why the relation is so weak is unclear. One possible explanation stems from the composition of the job satisfaction scale. The measure

of general job satisfaction used in this study was a combination of the five subscales within the JDI. The low correlation may be the result of conflicting relationships between OCB and one or more of the individual JDI subscales.

To investigate this relationship, an additional analysis was conducted examining the correlations among OCB and each of the five dimensions within the measure of general job satisfaction. This analysis revealed that there was only one statistically significant relationship among OCB and the five dimensions. The significant correlation was between OCB and satisfaction with the work itself (r = .21). All four of the other correlations were non-significant. Speculation regarding why OCB was only related to satisfaction with the work itself might suggest that it is most salient of the five elements of job satisfaction when it comes to determining the influence of job attitudes on engaging in positive non-workrole behaviors.

A similar analysis was conducted using work withdrawal in order to compare its relation to the five facets of job satisfaction. The results were quite different. Four of the five correlations were statistically significant. The non-significant correlation was between work withdrawal and satisfaction with pay and benefits (r = -.10). The other correlations were -.21, -.27, -.22, and -.19 for work, promotions, supervisor, and co-workers, respectively. These results provide additional support for the distinction between work withdrawal and OCB.

OCB's low correlations across all of the variables in the study suggest further investigation of the OCB measure may be necessary. Examining the correlations of OCB with the other variables in the study reveals that OCB is not correlated higher than .30 with any of the variables. OCB is most highly correlated with positive affect (r = .30). The variables with the lowest correlation with OCB are age and negative affect (r = -.01 and r = .01, respectively). Possibly future research could examine the factor structure of this

particular measure of OCB to determine if multiple factors could be contributing to the lack of expected correlations.

Affective State

Affective state also played a significant role in the prediction of both work withdrawal and OCB. In this study, affective state was operationalized as the extent to which participants reported experiencing various emotions or moods during the week prior to completing the questionnaire.

The significant paths from positive affect to OCB in both series of models suggest that a person's mood influences his or her performance of OCB. It is not difficult to imagine the situation in which an employee has the opportunity to perform a voluntary positive behavior at work and how the decision to carry out the behavior may be influenced by his or her recent mood. For example, staying late for a few minutes to help a co-worker may be more likely for a person in a good mood than a person in a bad mood.

While negative affect did significantly influence work withdrawal in Model 3 of both series, the path from negative affect to work withdrawal was non-significant in the final model (Model 4) of both series. In series 1, this result could be explained by negative affect's high correlation with neuroticism (ϕ=.64). It appears that the variance in work withdrawal previously predicted by negative affect in model 3 is now being accounted for by neuroticism in Model 4. In series 2, however, the correlation between negative affect and impulsiveness (a facet of neuroticism) is relatively quite small (ϕ=.25). Therefore, this explanation does not hold for the negative affect - work withdrawal path being non-significant in series 2

The relations or lack of relations between positive affect, negative affect, job satisfaction, work withdrawal, and OCB in this study are particularly interesting. It appears that OCB is more strongly influenced by affective state (positive affect) than by a general attitude (job satisfaction). In contrast, the opposite is true for work withdrawal. It is more

strongly influenced by a general attitude (job satisfaction) than by affective state (negative affect).

Although previous research has not compared OCB and work withdrawal together, the findings regarding OCB and affect are consistent with previous studies of affect and OCB (e.g., George, 1991; Organ & Konovsky, 1989; Organ & Lingl, 1995). A possible direction for future research is the further investigation of these relationships to corroborate the findings of this study.

Personality

In the first series of models, the strongest relationship produced was the effect of the personality measure of conscientiousness on work withdrawal. The path coefficient of -.46 suggests the predictable conclusion that people who are scrupulous and reliable are less likely to engage in behaviors that remove them from their regular work tasks than people who are unreliable or careless. The significant relationship demonstrated between conscientiousness and work withdrawal is consistent with other studies that have reported relationships for conscientiousness and more traditional performance measures (e.g., Barrick & Mount, 1991; Hogan, 1991).

The other two personality factors did not play a significant role in the prediction of either positive or negative non-workrole behaviors. The paths from agreeableness to OCB and neuroticism to work withdrawal were not statistically significant. These findings were inconsistent with the hypotheses. In addition, they go against intuitive expectations based on the definitions of the constructs.

For example, agreeableness is defined as being helpful and altruistic. OCB is made up of behaviors that are generally helpful to the organization. Given this similarity, a logical conclusion suggests that they should be related. It is not immediately apparent why the hypothesis was not supported. It is possible that the result is a specific anomaly. However,

given the absence of previous research investigating this specific relationship between agreeableness and OCB, it is difficult to make any conclusions.

Similarly, neuroticism did not fulfill its theoretical expectations. Neuroticism is described as being prone to worry, anger, impulsiveness, and depression. It was hypothesized that these tendencies would result in more frequent work withdrawal behaviors. This theory, however, appears to be incorrect. Neuroticism was not significantly related to work withdrawal.

Conscientiousness was also hypothesized to cause OCB. The data did not, however, support this hypothesis. The path coefficient was .07 and was not statistically significant ($p >$ .05). This was somewhat surprising given the success reported in the literature of using conscientiousness as a predictor of traditional job performance (e.g. Barrick & Mount, 1991).

Even though the path coefficient in the final model was not significant, the zero-order correlation for conscientiousness and OCB was .28 ($p < .05$). The non-significant path coefficient suggests that another variable (or other variables) may have accounted for the variance that contributed to the zero-order correlation between conscientiousness and OCB. Based on the relationships within the model, it appears that positive affect may be that variable. Positive affect would therefore reduce the variance in OCB available to be predicted by conscientiousness. As was noted previously, positive affect does have a significant causal influence on OCB in Models 3 and 4 in both series of models. It is also correlated with conscientiousness ($r = .37$, ϕ .44).

Comparison of the Two Series of Models

Important differences are apparent in comparing the use of personality factors and personality facets. As expected, the models were identical and had similar results until Model 4 where the personality variables were added. Overall, the results suggest that the personality facets are more effective than the personality factors in predicting non-workrole behaviors. Six of the eight paths tested in the second series produced statistically significant

values (compared to only three in the first series), and the goodness of fit indices were slightly better in series 2 than they were in series 1.

Impulsiveness, which is a specific component of neuroticism, produced a path coefficient of .17 to the criterion of work withdrawal ($p < .05$). Unlike neuroticism from series one, the path for impulsiveness to work withdrawal is statistically significant. Impulsiveness is described as the inability to resist urges or cravings (Costa & McCrae, 1992). The hypothesis for the relationship between impulsiveness and work withdrawal was based on the theory that employees engage in withdrawal behaviors to cope or adapt to negative job attitudes and/or cognitions regarding their jobs. These negative feelings create an urge or craving to relieve them. Therefore, employees scoring highly on the impulsiveness scale have a greater inability to control these urges and, as a result, engage in more work withdrawal behaviors than employees with low impulsiveness scores. Employees with low impulsiveness scores are better able control the temptations of withdrawal behaviors such as coming back late after lunch or calling in sick. As a result, they engage in fewer withdrawal behaviors.

The result of impulsiveness being significantly related to work withdrawal while neuroticism was not is also support for the use of criterion-related conceptualizations of personality. These results suggest that the general personality construct of neuroticism includes content that is not criterion-related. For example, the neuroticism factor is composed of facets such as self-consciousness and vulnerability that are not expected to be related to work withdrawal. Given these results in which neuroticism is not a significant predictor of work withdrawal, possibly the other elements of neuroticism such as anxiety and anger are not related to work withdrawal as was originally hypothesized. This would explain why neuroticism was not a significant predictor of work withdrawal and impulsiveness was. Impulsiveness was more closely related to the criterion variable than the other elements of neuroticism. When combined with the other elements of neuroticism, the covariance

between work withdrawal and impulsiveness is eliminated by the lack of covariance between work withdrawal and the other elements of neuroticism.

Next, the predictive performance of conscientiousness and dutifulness is compared. Conscientiousness was, as expected, significantly related to work withdrawal. Dutifulness, however, was a significant predictor of work withdrawal but also produced an unexpected relationship with OCB. The coefficient for the path from dutifulness to work withdrawal was larger than the same path using conscientiousness (-.46 vs. -.54). This was consistent with the hypotheses and provides support for the importance of using criterion-related measures of personality.

Contrary to the hypothesis, dutifulness resulted in a negative relationship with OCB. The negative path coefficient (-.22) between dutifulness and OCB is inconsistent with the hypothesis and the logic that led to the hypothesis. High scorers on the dutifulness scale are said to "adhere strictly to their ethical principles and scrupulously fulfill their moral obligations" (Costa & McCrae, 1992, p. 18). Given that, by definition, OCB consists of behaviors that are not required or obligatory, possibly those employees high in dutifulness do not see OCB as part of their duty. Therefore, performing OCB is less likely to be performed by those employees high in dutifulness. This explanation, however, would also suggest that those employees who are low in dutifulness would be more likely to engage in OCB than employees who are high in dutifulness. Being low in dutifulness is described by Costa and McCrae (1992) as being more casual about principles and obligations. Possibly this results in a greater opportunity to participate in spontaneous non-workrole behavior. For example, if an employee does not feel an obligation to complete his or her assigned work tasks, he or she may spend the time engaging in positive non-workrole behavior. This is, however, purely conjecture.

The third personality facet, altruism, performed differently than the general factor agreeableness by being significantly related to OCB while agreeableness was not. The

significant path from altruism to OCB does support the theoretical, and expected, relationship between being altruistic and performing non-workrole behaviors that help the employing organization. The conclusion is fairly simple. People who tend to be helpful (i.e., are altruistic) will be helpful at work (i.e., engage in OCB).

Similar to neuroticism and impulsiveness, finding a relationship between altruism and OCB and not a finding a relationship between agreeableness and OCB is likely connected to the issue of using criterion-related personality constructs. While agreeableness was theoretically linked to OCB, the results of this study suggest that its conceptualization was too broad to demonstrate how it was related to OCB. The definition of agreeableness includes concepts described by Costa and McCrae (1992) as trustworthiness, straightforwardness, altruism, compliance, modesty, and tender-mindedness. Of these subcategories of agreeableness, altruism was hypothesized as being most closely related to the OCB criterion. As was mentioned with neuroticism and impulsiveness previously, the covariance between altruism and OCB is not detectable when measured with the non-criterion related elements of agreeableness.

Limitations

Although the findings of this study are important, there are a few limitations that should be acknowledged. The first limitation is directly tied to one of the greatest benefits of the study. It is the result of using the Big Five personality framework and the NEO FFI and NEO PI-R facet scales as personality measures. This was one of the greatest strengths of the study because it provided a link between the study of employees' non-workrole behavior and mainstream five-factor personality research. The limitation comes from the low reliability estimates produced by the personality scales. As was noted in the results section, the personality scales produced the lowest factor loadings in the measurement models. This may have contributed to the resulting quality of the measurement models. While the fit indices were adequate, they ideally would have been better. The facet scales in particular are suspect

because of the small number of items in each scale and the resulting low reliabilities. The alphas for the facet scales were .63, .64, and .55 for impulsiveness, altruism, and dutifulness, respectively.

Examination of the modification indices reveals some tendency for cross loading on some of the personality facet indicators. For example, the impulsiveness indicator 2 shows a completely standardized expected change for lambda x of -.28 if allowed to load on dutifulness. Interestingly, the impulsiveness indicator 3 shows a completely standardized expected change for lambda x of .28 if allowed to load on dutifulness. Note the change from negative to positive. Similarly, two of the manifest indicators of dutifulness show completely standardized expected changes of .29 and -.22 if allowed to load on altruism.

These results suggest that the personality facet measures are not pure measures of impulsiveness, dutifulness, and altruism. As a result, confidence in the personality facet relationships demonstrated in this study are somewhat diminished. It does, however, provide a good launching point for future research in this area. By using the personality facet scales as a core, new scales could be developed that are similar in concept but more psychometrically sound than the eight-item scales used in this study.

A second limitation stems from the use of self-report data. There are very few options other than self-report data for the measurement of job satisfaction and affectivity. Personality and non-workrole behaviors could, however, be assessed by someone other than the individual performing the behaviors. For example, co-workers or supervisors could rate an employee's non-workrole behaviors, and a friend or family-member could rate the individual's personality. These measures were logistically not possible in this particular study, but including them in future research would improve the reliability and validity of those variables and strengthen any conclusions reached in the study of these relationships.

A possible third limitation is related to the generalizability of the sample. The individuals who participated in this study come from a very specific industry. Although it is

not expected that the relationships in this study would be different in other occupations, it is a concern worth mentioning. Given that these jobs are associated with caregiving, the participants may represent a particularly altruistic or particularly conscientious portion of the population in general. When the means for this sample are compared to the norms provided by Costa and McCrae (1992), however, no practical differences exist. Nonetheless, it would be well-founded to continue investigation of the findings reported here in other employee samples.

Theoretical Implications

The most significant theoretical implications derived from this study pertain to the effectiveness of personality and affect in the prediction of non-workrole behaviors. In particular, it is the relevance of personality to existing theories of organizational withdrawal that is of greatest importance. As was stated in the introduction, theories of organizational withdrawal have generally failed to include consideration of individual differences. To the extent that individual differences have been considered, it has usually been limited to a very specific manifestation such as preferences, needs, or experiences. The relationships demonstrated in this study link withdrawal to an accepted general taxonomy of personality. This link serves as an early step in establishing the nomological network around the areas of personality and organizational behavior called for by Weiss and Adler (1984).

It has been established that personality was virtually abandoned as an explanatory variable in I/O psychology for many years. The results reported here contribute to the continued interest in examining its usefulness in the study of organizational outcomes. Personality has slowly increased its acceptance among researchers in the context of employee selection and job performance. This study demonstrates that personality also has relevance to the area of non-workrole behaviors such as organizational withdrawal and OCB.

The conceptualization of organizational withdrawal as a broad behavioral construct played a key role in successfully demonstrating the relationship between personality and

behavior at work. By combining several forms of related criterion behavior, specific error variance is minimized and variance that is common among the individual behaviors is emphasized. It is very clear from the results of this study that the use of aggregation is appropriate and beneficial to establishing relationships that have previously been overlooked.

A similar finding resulted from the use of criterion-related conceptualizations of personality. Unlike attitudes and behavior where the conceptualization of behavior needed to be broadened, the issue related to personality was the need to be more specific in selecting what aspects of general personality are expected to be related to the criterion behaviors of interest. The personality factors proved to be too broad and occluded their relationship with the non-workrole behaviors. By looking at a factor's composition and selecting the portion of the factor that is expected to be criterion-related, significant relationships were demonstrated between personality and non-workrole behaviors.

Further evidence of the criterion-relatedness of the personality facets over the personality factors is seen by comparing the amount of variance accounted for by the model using personality factors and the variance accounted for by the model using personality facets. The final model in series 1 (personality factors) accounted for 37% of the variance in work withdrawal and 9% of the variance in OCB. Series 2 (personality facets) accounted for 43% of the variance in work withdrawal and 16% of the variance in OCB.

A theoretical issue that was not directly addressed in this study but is related to the areas of job satisfaction and personality is the causal influence of personality on job satisfaction. This is an area that provides opportunity for further research. This line of research has infrequently specifically addressed personality, and if personality was included, it was not framed within the structure of the Big Five. In an attempt to address the issue using this sample, a post hoc analysis was conducted to investigate a model in which the personality variables were hypothesized to cause non-workrole behaviors through job satisfaction in addition to the direct paths already specified.

Once again, two models were tested. Post hoc model 1 used the personality factors, and post hoc model 2 used the personality facets. The direct paths remained the same for both models. Post hoc model 1 did produce statistically significant path coefficients from each of the factors to job satisfaction (see Figure 18). The overall model fit statistics, however, did not improve from those produced for Model 4 in series 1. The goodness of fit indices for the first model are as follows: χ^2 = 547.75 with 269 degrees of freedom, χ^2/df ratio = 2.04, GFI = .87, AGFI = .86, and the standardized RMSR = .08. The variance accounted for in work withdrawal and OCB did not change from Model 4 in series 1. The personality factors did, however, account for a substantial amount of variance in job satisfaction (R^2 = .24) in the first post hoc model.

Post hoc model 2 consisted of the same analysis, only using personality facets in place of the personality factors. This model produced generally weaker results (see Figure 19). Only impulsiveness and altruism produced significant path coefficients predicting job satisfaction. The path from impulsiveness to job satisfaction was -.16 compared to -.42 for neuroticism. The path from altruism to job satisfaction was .19 compared to.25 that was produced by agreeableness. The overall model fit statistics did not improve over model 4 from the second series of models. The goodness of fit indices are as follows: χ^2 = 495.53 with 269 degrees of freedom, χ^2/df ratio = 1.84, GFI = .88, AGFI = .87, and the standardized RMSR = .07. Each of these values is equal the values reported for Model 4 in series 2. However, the variance accounted for in job satisfaction by this model was .07, which is less than in the first post hoc model.

Comparing the path coefficients and the variance accounted for by these two post hoc models, once again, confirms the importance of choosing the proper conceptualization of the

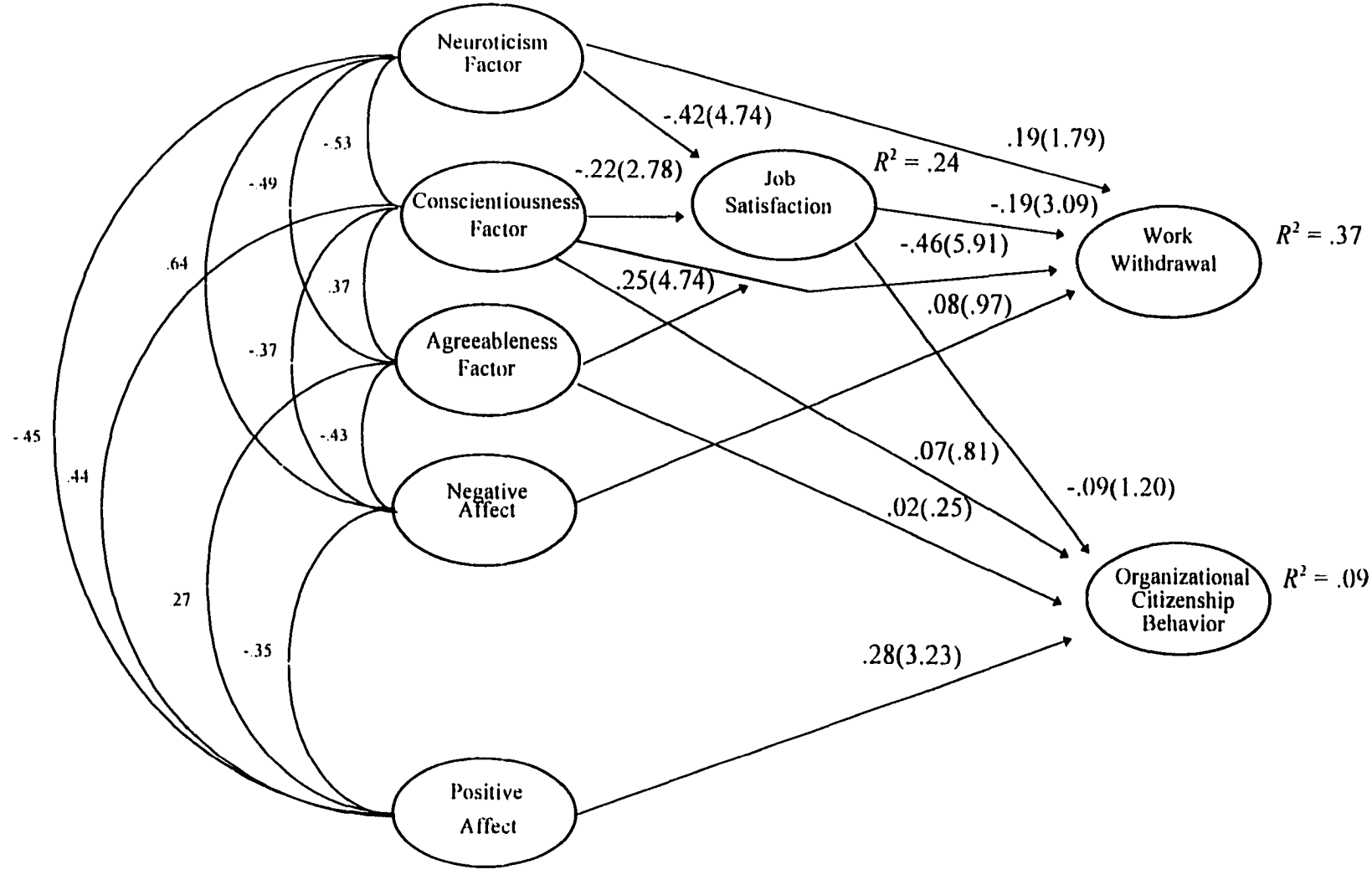


Figure 18. Post hoc model showing personality factors causing job satisfaction. Completely standardized path coefficients are shown with t-values in parentheses.

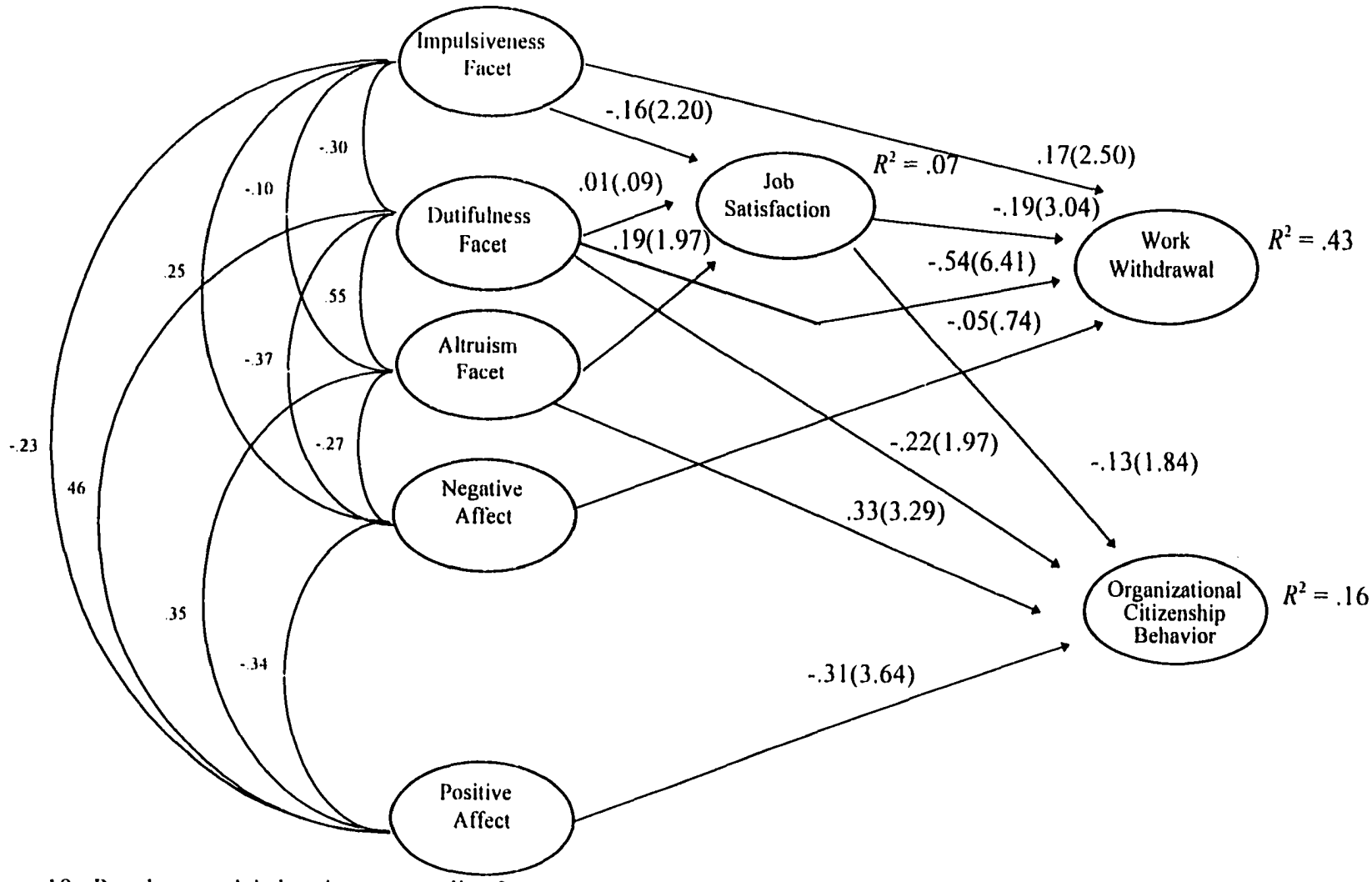


Figure 19. Post hoc model showing personality facets causing job satisfaction. Completely standardized path coefficients are shown with t-values in parentheses.

personality variables. In this case, the broader conceptualization of personality was a better predictor of job satisfaction. Granted, these were post hoc analyses, so it would be inappropriate to make definitive conclusions. The intent of the analyses, however, is to provide direction for future research regarding the dispositional influences of job satisfaction. The results presented here suggest that focusing on content-related conceptualizations of personality is a key part of their continued investigation.

An additional post hoc analysis was conducted using the best fit models in both series (Model 4) to further investigate the relation between the two endogenous variables in the original models. Given that the two concepts are relatively new, it is valuable to explore how their relation affects the proposed models beyond what was originally hypothesized.

In this post hoc analysis, the residuals of the two endogenous variables were allowed to correlate. In essence, this analysis provides information regarding the extent to which OCB and work withdrawal are correlated after accounting for the intercorrelation of the exogenous variables. In the original models, the two endogenous variables were not allowed to correlate because they were hypothesized to be separate constructs. This hypothesis was supported by the low zero-order correlation of the OCB and work withdrawal scales (r = -.06, $p > .05$).

The post hoc analysis using the personality factors produced interesting results (see Figure 20). The overall fit of the model did improve over the hypothesized Model 4 in series 1. This post hoc model produced a decrease in chi-square that was statistically significant, $\Delta\chi^2$ (1, N = 313) = 27.42, $p < .05$. It also produced a χ^2/ df ratio of 1.94. The GFI increased one point to .88, but the AGFI value did not change from .86. The RMSR decreased one point to a value of .07. The estimate of variance accounted for only improved slightly to R^2 = .39 for work withdrawal (R^2 was .37) while the variance accounted for in OCB remained the same.

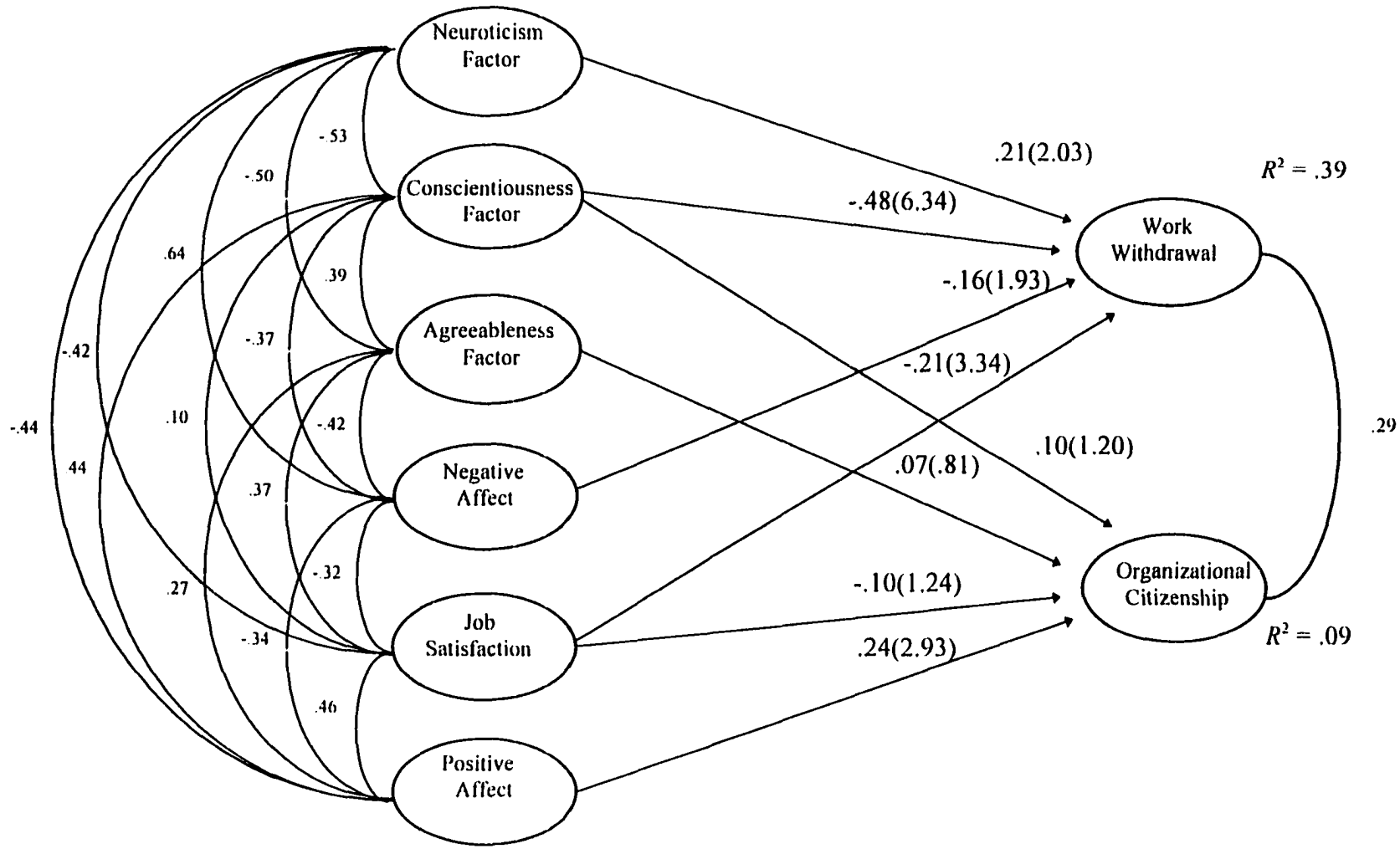


Figure 20. Post hoc model using personality factors and allowing the work withdrawal and OCB residuals to correlate. Completely standardized path coefficients are shown with t-values in parentheses.

Most of the path coefficients in this new model increased slightly as a result of correlating the endogenous variables. For example, the coefficient for neuroticism on work withdrawal increased from .19 to .21, and the coefficient for conscientiousness on OCB increased from .07 to .10. There was one coefficient, however, that did decrease as a result of allowing the variables to correlate. The path coefficient representing the relation between positive affect and OCB decreased from .28 to .24.

When the same analysis was conducted using the personality facets (see Figure 21), the overall model fit statistics again improved from the hypothesized Model 4. The chi-square reduction was significant; $\Delta\chi^2$ $(1, N = 313) = 22.16, p < .05$. The χ^2/ df ratio decreased from 1.84 to 1.77. The GFI changed from .88 to .89 while the AGFI also increased from .87 to .88. The RMSR decreased one point to .06.

Unlike the personality factors model, the individual relationships between the variables were generally weaker than the relationships reported in the hypothesized model. For example the coefficient for the path from job satisfaction to OCB changed from -.13 to -.11, and the coefficient for the path from dutifulness to work withdrawal changed from -.54 to -.53. In addition, there were relationships that changed considerably. The coefficient for the path from dutifulness to OCB changed from being statistically significant at -.22, to being non-significant at -.04. A similar decrease was found for the path between altruism and OCB and the path between positive affect and OCB. It decreased from .31 to .24 but remained statistically significant.

Another important difference from the personality factor model was the change in variance accounted for. The personality facet model with the endogenous variables correlated produced a decrease in variance accounted for in both work withdrawal and OCB. The R^2 for OCB decreased from .16 to .13 and the R^2 for work withdrawal decreased from .43 to .42.

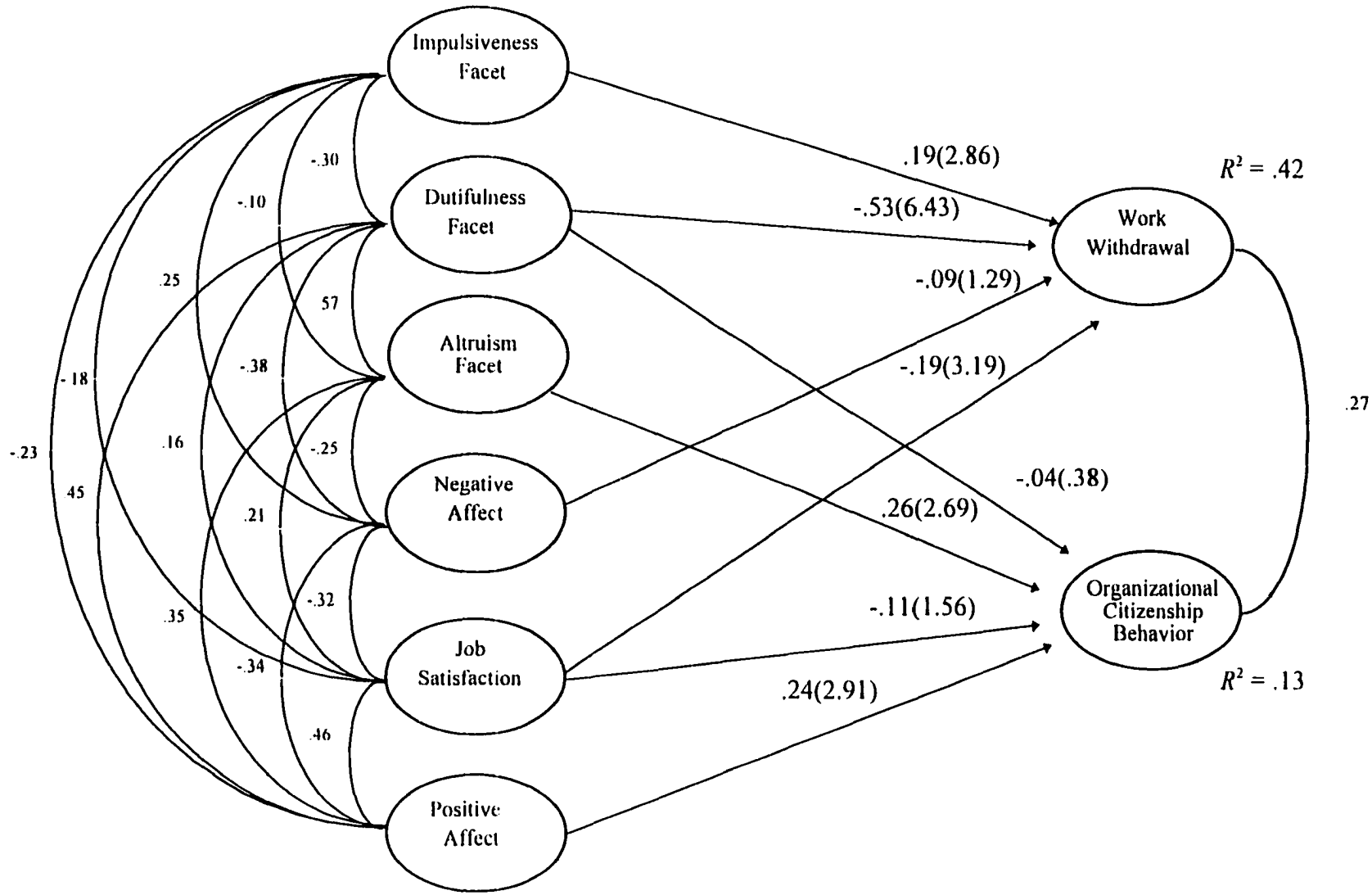


Figure 21. Post hoc model using personality facets and allowing the work withdrawal and OCB residuals to correlate. Completely standardized path coefficients are shown with t-values in parentheses.

The results of these post hoc analyses suggest that OCB and work withdrawal are related and should be allowed to correlate in the models. This is inconsistent with the zero-order correlations reported earlier. The multi-variate analysis revealed a relationship that was obscured in the bi-variate analysis. The correlations estimated in the analyses were .29 in the personality factors model and .27 in the personality facets model. Contrary to rational expectation, OCB and work withdrawal were shown to be *positively* correlated. This result suggests that there must be a common explanatory variable other than those included in the models. For example, work load could be a possible determinant of both OCB and work withdrawal and could be causing their positive correlation. Those employees who do not have as much work to do have greater opportunities to engage in both positive and negative non-workrole behaviors. This is obviously an interesting opportunity for further research.

Practical Implications

In addition to the theoretical implications already discussed, the results of this study also have implications for the practice of I/O psychology. The renewed interest in personality has mainly focused on its usefulness in employee selection. The results reported here support the usefulness of personality post-hire as well. Work withdrawal, as a means of removing one's self from work, presents an important performance management challenge. Previously, work withdrawal would likely be addressed through designing an intervention around the drivers of job satisfaction. Although this certainly is a valid approach, the findings of this study would suggest that differences in personality may affect the success of such an intervention. Given the personality traits of the individual are unlikely to be effectively changed, knowledge of an individual's predisposition may influence the design of the job satisfaction intervention to account for personality differences.

For example, suppose an organization has a work group where several of the workers are coming in late and leaving early. When they are at work, many of them wander around the work area and visit with their co-workers. In addition, recent changes in the company's

organization has resulted in significantly fewer supervisors in this particular area of production. This fact prevents the organization from providing more supervision or discipline. One option for an intervention might include trying to improve job satisfaction by redesigning the job. Another option, based on the results of this study, would suggest identifying those employees who have personality profiles that make them more likely to engage in withdrawal behaviors (i.e., those employees who are low in conscientiousness and high in impulsiveness) and assign them to jobs that are less autonomous and have greater supervision. Granted, there would be other factors to consider, such as employee relations and the availability of other jobs, but given the right environment, such a strategy could be beneficial.

Similar principles would apply to organizational managers wanting to increase the occurrence of OCB. An example relevant to current management trends would be organizations that are changing to a work structure that is based on teams from a structure that is based on individuals. As responsibilities shift from individuals to teams, helping behaviors that make up OCB will become increasingly important. Based on the results of this study, consideration of individuals' altruism levels would be helpful in assembling the teams and predicting the teams' success. Employees who are low on altruism could possibly be put into jobs that are not team-based. Another option would be to include those employees in the teams but alter the management of the team to account for the effects of low altruism. Altering the management of such a team might include explicitly listing and evaluating what are normally considered non-workrole behaviors. For example, including the frequency of volunteering for projects or offering to help co-workers as part of employees' performance appraisals.

The demonstrated influence of specific personality facets on work withdrawal and OCB also presents an opportunity for continued research. This study examined a limited number of possible personality facets that could be linked to non-workrole behaviors. A

possible next step would be to investigate other facets such as competence or achievement striving from the conscientiousness factor that might be useful in the prediction of work withdrawal and OCB.

The demonstrated relationship between positive affect and OCB has some implications for performance management as well. Essentially, the results of this study say that employees who have greater positive affect are more likely to engage in positive non-workrole behaviors than employees who do not. This suggests that small gestures that impact employees' mood may have an effect on employees' frequency of engaging in OCB. A possible next step in this area would be to investigate what types of management activities can improve or maintain employees' moods. For example, does casual day result in better moods, and therefore, more OCB? Will bringing donuts in the morning result in more frequent OCB?

The behaviors that compose OCB are generally considered trivial when taken individually. However, when aggregated across time and across many individuals in an organization, they can produce an important impact on organizational performance. To the extent that employees' affective condition influences OCB performance, managers can influence organizational outcomes by focusing on the mood and well-being of their employees. The results reported here suggest that employees who are in a good mood are more likely to volunteer, stay late, and/or make an extra effort. This provides organizationally important reasons for supervisors and managers to be concerned with the emotional state of their employees.

Conclusions

This study provided answers to questions regarding the usefulness of personality measurement in the prediction of organizationally relevant employee behaviors. It provided additional evidence to support the continued use of personality as an explanatory variable in I/O psychology. In particular, it suggested that, like job attitudes, congruence between the

level or scope of measurement is an important consideration when establishing the usefulness of personality as a predictor of employee behavior. Although personality has more or less been accepted as consisting of five general factors, their general level of measurement is not necessarily appropriate for all instances. In this study, evidence was provided that suggests that decreasing the generality of the personality measurement and increasing the generality of behavioral measurement demonstrates significant relationships between the two concepts.

Finally, the critique of personality by Guion and Gottier (1965) had profound negative effects on personality research in applied settings. Things, however, have begun to change as interest in the usefulness of personality continues to grow. Personality is now conceptualized in a way that is very different and is producing results that are unlike the results of 30 years ago. This study has contributed to the continued investigation of the new understanding of personality, and how it can influence organizational effectiveness.

APPENDIX A

The following questionnaire is being used to learn what it is like to work at ORGANIZATION NAME, and how you feel about your job. The questionnaire will ask you about your attitudes, feelings, and behaviors regarding working at ORGANIZATION NAME. Instructions will be provided with each section. Questions are printed on both the **FRONT AND BACK** of each page. Some of the questions may seem similar to you, but this is necessary in order to provide a complete picture of your situation.

It is very important that you answer each question as accurately as you can. There are no right or wrong answers. ALL ANSWERS WILL REMAIN CONFIDENTIAL. No one at ORGANIZATION NAME will see any one individual's answers.

Please list the two job activities you do most often:

1.

2.

Average number of hours worked per week _____

How long have you worked for ORGANIZATION NAME? _____ Years _____ Months

Circle the number corresponding to the appropriate answer.

Work Status at ORGANIZATION NAME: (1) Full time (2) Part time (3) Substitute

Sex: (1) Male(2) Female

Marital Status: (1) Married (2) Single (3) Divorced/Separated (4) Widowed

What is your current age?

(1) 18 to 23 (3) 30 to 35 (5) 42 to 47 (7) 54 to 58 (9) 65 and over

(2) 24 to 29 (4) 36 to 41 (6) 48 to 53 (8) 59 to 64

What is the highest level of education you have completed?

(1) Less than a high school education

(2) High school diploma or GED (Graduate Equivalency Diploma)

(3) High school diploma plus some technical training or apprenticeship

(4) Some college

(5) Graduated from college (AA, BA, BS)

(6) Some graduate school

(7) Graduate or professional degree

(8) Other (please explain) _____

What is your current salary?

(1) Below $15,000
(2) $15,001 - 25,000
(3) $25,001 - 35,000
(4) $35,001 - 45,000
(5) $45,001 - 55,000
(6) $55,001 - 65,000
(7) More than $65,000

APPENDIX B

The following statements pertain to the WORK that you do. What is your WORK like MOST of the time? Please circle YES if the item describes your WORK, NO if the item does not describe your WORK, and circle ? only if you cannot decide. Please circle one response for each question.

1. Fascinating	1.	YES	NO	?
2. Routine	2.	YES	NO	?
3. Satisfying	3.	YES	NO	?
4. Boring	4.	YES	NO	?
5. Important	5.	YES	NO	?
6. Creative	6.	YES	NO	?
7. Respected	7.	YES	NO	?
8. Pleasant	8.	YES	NO	?
9. Useful	9.	YES	NO	?
10. Tiresome	10.	YES	NO	?
11. Challenging	11.	YES	NO	?
12. Frustrating	12.	YES	NO	?
13. Simple	13.	YES	NO	?
14. Gives sense of accomplishment	14.	YES	NO	?
15. Dull	15.	YES	NO	?
16. A source of pleasure	16.	YES	NO	?
17. Awful	17.	YES	NO	?
18. Interesting	18.	YES	NO	?

In this section, you should think about your feelings about PROMOTION AND ADVANCEMENT in your job. All in all, how do you feel about the promotion system? Circle YES if the item describes the PROMOTION system, NO if the item does not describe the PROMOTION system, and circle ? only if you cannot decide. Please circle one response for each item.

1. Good opportunity for advancement	1.	YES	NO	?
2. Opportunity somewhat limited	2.	YES	NO	?
3. Promotion on ability	3.	YES	NO	?
4. Dead-end job	4.	YES	NO	?
5. Good chance for promotion	5.	YES	NO	?
6. Infrequent promotions	6.	YES	NO	?
7. Regular promotions	7.	YES	NO	?
8. Fairly good chance for promotion	8.	YES	NO	?
9. Easy to get ahead	9.	YES	NO	?

The next set of statements ask you to describe your IMMEDIATE SUPERVISOR. What is he/she like MOST of the time? Circle YES if the item describes your SUPERVISOR, NO if the item does not describe your SUPERVISOR, and circle ? only if you cannot decide. Please circle one response for each item.

1. Hard to please	1.	YES	NO	?
2. Impolite	2.	YES	NO	?
3. Praises good work	3.	YES	NO	?
4. Tactful	4.	YES	NO	?
5. Up-to-date	5.	YES	NO	?
6. Quick-tempered	6.	YES	NO	?
7. Tells me where I stand	7.	YES	NO	?
8. Annoying	8.	YES	NO	?
9. Stubborn	9.	YES	NO	?
10. Knows job well	10.	YES	NO	?
11. Bad	11.	YES	NO	?
12. Intelligent	12.	YES	NO	?
13. Lazy	13.	YES	NO	?
14. Around when needed	14.	YES	NO	?
15 Interferes with my work	15.	YES	NO	?
16. Gives confusing directions	16.	YES	NO	?
17. Knows how to supervise	17.	YES	NO	?
18. Cannot be trusted	18.	YES	NO	?

The following questions pertain to the PAY AND BENEFITS you receive from your job. Please circle YES if the item describes your PAY AND BENEFITS, NO if the item does not describe your PAY AND BENEFITS, and circle ? only if you cannot decide. Please circle one response for each question.

1. Income adequate for normal expenses	1.	YES	NO	?
2. Barely live on income	2.	YES	NO	?
3. Bad	3.	YES	NO	?
4. Insecure	4.	YES	NO	?
5. Less than I deserve	5.	YES	NO	?
6. Underpaid	6.	YES	NO	?
7. Well paid	7.	YES	NO	?
8. Unfair	8.	YES	NO	?
9. Enough for what I need	9.	YES	NO	?

The following statements ask you to think about the majority of the employees you work with. What are they like MOST of the time? Circle YES if the item describes the PEOPLE YOU WORK WITH, NO if the item does not describe the PEOPLE YOU WORK WITH, and circle ? only if you cannot decide. Please circle one response per item.

1. Stimulating	1.	YES	NO	?
2. Boring	2.	YES	NO	?
3. Slow	3.	YES	NO	?
4. Ambitious	4.	YES	NO	?
5. Stupid	5.	YES	NO	?
6. Responsible	6.	YES	NO	?
7. Waste of time	7.	YES	NO	?
8. Intelligent	8.	YES	NO	?
9. Easy to make enemies	9.	YES	NO	?
10. Talk too much	10.	YES	NO	?
11. Smart	11.	YES	NO	?
12. Lazy	12.	YES	NO	?
13. Unpleasant	13.	YES	NO	?
14. Active	14.	YES	NO	?
15 Narrow interests	15.	YES	NO	?
16. Loyal	16.	YES	NO	?
17. Bother me	17.	YES	NO	?
18. Work well together	18.	YES	NO	?

APPENDIX C

Neuroticism

I am not a worrier. (R)
I often feel inferior to others.
When I'm under a great deal of stress, sometimes I feel like I'm going to pieces.
In dealing with other people, I always dread making a social blunder.
I often feel tense and jittery.
Sometimes I feel completely worthless.
I rarely feel fearful or anxious. (R)
I often get angry at the way people treat me.
Too often, when things go wrong, I get discouraged and feel like giving up.
I am seldom sad or depressed. (R)
I often feel helpless and want someone else to solve my problems.
At times I have been so ashamed I just wanted to hide.

Agreeableness

I try to be courteous to everyone I meet.
I often get into arguments with my family and co-workers. (R)
Some people think I'm selfish and egotistical. (R)
I would rather cooperate with others than compete with them.
I tend to be cynical and skeptical of others' intentions. (R)
I believe that most people will take advantage of you if you let them. (R)
Most people I know like me.
Some people think of me as cold and calculating. (R)
I'm hard-headed and tough-minded in my attitudes. (R)
I generally try to be thoughtful and considerate.
If I don't like people, I let them know it. (R)
If necessary, I am willing to manipulate people to get what I want. (R)

Conscientiousness

I keep my belongings neat and clean.
I'm pretty good about pacing myself so as to get things done on time.
I am not a very methodical person. (R)
I try to perform all the tasks assigned to me conscientiously.
I have a clear set of goals and work toward them in an orderly fashion.
I waste a lot of time before settling down to work. (R)
I work hard to accomplish my goals.
When I make a commitment, I can always be counted on to follow through.
Sometimes I'm not as dependable or reliable as I should be. (R)
I am a productive person who always gets the job done.
I never seem to be able to get organized. (R)
I strive for excellence in everything I do.

Note: R indicates an item that is reverse scored.

APPENDIX D

Neuroticism - Facet N5: Impulsiveness

I rarely overindulge in anything. (R)
I have trouble resisting my cravings.
I have little difficulty resisting temptation. (R)
When I am having my favorite foods, I tend to eat too much.
I seldom give in to my impulses. (R)
I sometimes eat myself sick.
Sometimes I do things on impulse that I later regret.
I am always able to keep my feelings under control. (R)

Agreeableness - Facet A3: Altruism

Some people think I'm selfish and egotistical. (R)
I try to be courteous to everyone I meet.
Some people think of me as cold and calculating. (R)
I generally try to be thoughtful and considerate.
I'm not known for my generosity. (R)
Most people I know like me.
I think of myself as a charitable person.
I go out of my way to help others if I can.

Conscientiousness - Facet C3: Dutifulness

I try to perform all the tasks assigned to me conscientiously.
Sometimes I'm not as dependable or reliable as I should be. (R)
I pay my debts promptly and in full.
Sometimes I cheat when I play solitaire. (R)
When I make a commitment, I can always be counted on to follow through.
I adhere strictly to my ethical principles.
I try to do jobs carefully, so they won't have to be done again.
I'd really have to be sick before I'd miss a day of work.

Note: R indicates an item that is reverse scored.

APPENDIX E

The following items ask you how characteristic each of the following behaviors are of your work activities. Indicate how much you agree with each statement by writing the number of the response in the blank next to each item. Please use the response scale below. Again, all answers are confidential.

1	2	3	4	5
Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree

c1. _____ I help other employees with their work when they have been absent.
c2. _____ I take initiative to orient new employees even though it's not part of my job description.
w3. _____ I sometimes take undeserved work breaks.
c4. _____ I take fewer days off than other employees.
c5. _____ I give advance notice if I'm unable to come to work.
w6. _____ I coast toward the end of the day.
c7. _____ I willingly attend work functions that are not required, but are good for the company.

Note: c indicates citizenship item and w indicates a work withdrawal item.

APPENDIX F

The following items ask you to estimate how frequently you have engaged in certain job behaviors or how often various activities have occurred in the past 12 months. Please use the response scale below and write the number of the response in the blank next to each item. Again, all answers are confidential.

1	2	3	4	5	6	7	8
Never	Maybe once a year	Two or three times a year	Nearly every other month	About once a month	More than once a month	Once a week	More than once a week

w_____ Drinking alcohol or using drugs after work primarily because of things that occurred at work.

c_____ Doing things that are not required on my job that make ORGANIZATION NAME a better place to work.

w_____ Finding easier work to avoid doing unpleasant tasks (such as changing linens, bed pans, etc.).

c_____ Talking up ORGANIZATION NAME to my friends as a great organization to work for.

w_____ Not completing required paperwork/charting on time.

c_____ Arriving at work before my scheduled time in the morning.

w_____ Taking frequent or long coffee or lunch breaks.

c_____ Staying late to help a co-worker even when I would not have to.

c_____ Helping others when their work load increases.

w_____ Drinking alcohol or using drugs before coming to work.

c_____ Volunteering to do things not formally required of my job.

w_____ Neglecting those tasks that will not affect my performance evaluation.

c_____ Taking extra care with equipment to keep it in good shape.

w_____ Letting others do my work for me during my shift.

w_____ Withholding important information from co-workers or supervisors.

w_____ Making suggestions to my supervisor about better ways to do things at ORGANIZATION NAME.

w_____ Making up excuses to get out of going to work.

c_____ Making an extra effort to keep things neat, clean, and orderly.

w_____ Complaining to other employees about ORGANIZATION NAME.

c_____ Starting work early after returning from lunch and/or breaks.

w_____ Visiting with co-workers about trivia while at work.

c_____ Purposefully leaving work for the next shift to do.

w_____ Taking responsibility for initiating needed changes in my work.

w_____ Being absent when I am not actually sick.

w_____ Violating a company safety rule.

w_____ Daydreaming while I should be working.

c_____ Making suggestions to improve quality.

w_____ Making excuses to leave the work area.

w_____ Failing to attend scheduled meetings.

w_____ Gossiping with others at work.

c_____ Assisting my supervisor with his/her duties.

w_____ Using the work phone for personal calls.

w_____ Leaving work early without permission.

c_____ Working on more difficult tasks to make things better for the next shift.

Note: c indicates citizenship item and w indicates a work withdrawal item.

APPENDIX G

The PANAS

This scale consists of a number of words that describe different feelings and emotions. Read each item and then mark the appropriate answer in the space next to that word. Indicate to what extent you have felt this way during the PAST WEEK ***across all areas of your life.*** Use the following scale to record your answers.

1	2	3	4	5
very slightly or not at all	a little	moderately	quite a bit	extremely

_____ interested	_____ irritable
_____ distressed	_____ alert
_____ excited	_____ ashamed
_____ upset	_____ inspired
_____ strong	_____ nervous
_____ guilty	_____ determined
_____ scared	_____ attentive
_____ hostile	_____ jittery
_____ enthusiastic	_____ active
_____ proud	_____ afraid

APPENDIX H

DATE

Dear ORGANIZATION employee:

As organizational researchers at Iowa State University, we are interested in studying employee behavior in different types of jobs. As a result, we are requesting your participation in a research project that is being conducted at ORGANIZATION. This study will examine how employees react to certain aspects of their jobs.

Your participation in the project is voluntary and consists of answering questions about yourself, how you feel about your job, and the different types of behaviors you might engage in at work. It will take approximately 35-40 minutes to complete the questionnaire. The project has been approved by the administrators at ORGANIZATION and they are encouraging your participation.

The information you provide will be kept absolutely confidential. Actual responses will not be seen by anyone but the researchers. The questionnaires will be returned directly to Iowa State University via a pre-paid, pre-addressed envelope included with the questionnaire. No names are needed for the questionnaire. ORGANIZATION will receive a report of the study's findings, but no individual will be able to be identified because all information in the report will be combined into groups. This means that no one at ORGANIZATION will see your answers or be able to identify an employee from the information gathered in this study. After the questionnaires have been received, they will be kept in a locked file at Iowa State University.

The purpose of this project is to provide information on the relationship between employee attitudes, personality, and behavior at work. Conclusions drawn from this project are expected to be useful to organizations in general as well as care providers such as ORGANIZATION. The information gathered here may be used in scientific presentations and publications, but only after it has been combined into groups and all personal identifying information has been removed.

Everyone at ORGANIZATION is receiving a questionnaire. For this project to be successful, we must receive responses from as many ORGANIZATION employees as possible. In appreciation of your completing and returning the questionnaire by **DATE**, your name will be entered into a drawing for $100. Simply fill out the enclosed form and return it in the prepaid envelope with your questionnaire. The winner will be notified by phone during the month of July. If you are not comfortable with including the drawing form in the envelope with your questionnaire, you may mail it separately to Doug Molitor at the address above. If you have any questions about this study, please feel free to call Doug Molitor at 703-351-9407. Thank you for your time and participation.

Sincerely,

Douglas Molitor
Iowa State University

Kathy Hanisch, Ph. D.
Iowa State University

APPENDIX I

Correlations Among Manifest Indicators

	N1A	N2A	N3A	AGG1	AGG2	AGG3	CON1	CON2	CON3	IMP1	IMP2
N1A	1.0000										
N2A	.5507	1.0000									
N3A	.5479	.5387	1.0000								
AGG1	-.2409	-.2711	-.1108	1.0000							
AGG2	-.3151	-.3062	-.1318	.3547	1.0000						
AGG3	-.2817	-.2976	-.1708	.4120	.5370	1.0000					
CON1	-.2754	-.2982	-.2028	.2314	.0958	.2845	1.0000				
CON2	-.3076	-.3106	-.2431	.2196	.0407	.1890	.5053	1.0000			
CON3	-.3885	-.3213	-.2279	.2799	.0964	.2682	.5591	.5889	1.0000		
IMP1	.3139	.3860	.2585	-.1747	-.1267	-.1879	-.1210	-.0887	-.1507	1.0000	
IMP2	.3985	.6288	.3474	-.2181	-.1646	-.2150	-.2131	-.2439	-.2767	.5122	1.0000
IMP3	.2879	.3788	.2321	-.0147	-.0898	-.1663	-.0866	-.0819	-.0874	.3518	.3764
ALT1	-.1758	-.1396	-.1044	.3739	.3316	.6648	.2737	.2131	.2603	-.0906	-.0740
ALT2	-.2048	-.1480	-.1346	.5654	.2231	.3116	.1500	.2661	.2065	-.0421	-.0480
ALT3	-.1769	-.1310	-.1194	.3875	.4302	.4659	.1875	.2376	.1953	-.0364	-.0635
DUT1	-.2532	-.2258	-.1428	.3152	.1518	.2285	.3518	.5860	.4779	-.1326	-.2096
DUT2	-.2859	-.2745	-.2083	.1544	.0433	.1475	.2549	.5604	.4178	-.0641	-.1738
DUT3	-.2048	-.2688	-.1677	.2155	.1710	.1722	.2107	.3592	.2156	-.0966	-.1266
POSAFF1	-.2894	-.3854	-.2136	.2380	.2241	.1798	.1944	.3518	.2639	-.1538	-.1956
POSAFF2	-.2023	-.2555	-.1663	.1925	.0537	.0968	.2310	.3626	.2362	-.0703	-.1267
POSAFF3	-.3137	-.3494	-.2361	.1505	.0993	.1565	.2746	.3000	.2518	-.1028	-.2050
NEGAFF1	.4121	.3185	.4360	-.1631	-.2716	-.2299	-.1602	-.1533	-.2457	.1045	.1568
NEGAFF2	.4445	.3634	.3321	-.3058	-.2986	-.2713	-.2348	-.1419	-.2962	.1197	.1569
NEGAFF3	.3950	.3699	.4037	-.2116	-.2154	-.2031	-.2637	-.2065	-.3218	.1333	.2063
JDI1	-.3221	-.2881	-.2264	.1726	.3073	.1473	-.0442	.0951	.0680	-.0946	-.1111
JDI2	-.3369	-.3146	-.2020	.2394	.3206	.1863	.0152	.1165	.0930	-.1496	-.1401
JDI3	-.3190	-.3100	-.2135	.2156	.3427	.2153	.0103	.1117	.0962	-.1340	-.1565
WW1	.3288	.3646	.1816	-.1527	-.2522	-.1884	-.2602	-.2308	-.2684	.1284	.2138
WW2	.3020	.3780	.2083	-.2404	-.2344	-.3026	-.3397	-.3531	-.3382	.1543	.2894
WW3	.2333	.2587	.1187	-.2178	-.1858	-.3026	-.4124	-.3382	-.3631	.1276	.2040
OCB1	-.0505	-.0637	-.0734	.1603	-.0580	.1048	.1209	.2039	.1045	-.0477	-.1123
OCB2	-.1567	-.2103	-.1779	.2035	.0417	.1497	.2155	.2723	.1277	-.0964	-.1706
OCB3	-.0073	.0211	-.0402	.1002	-.1048	.0483	.1162	.1581	.0712	.0039	-.0313

Appendix I Continued.

	IMP3	ALT1	ALT2	ALT3	DUT1	DUT2	DUT3	POSAFF1	POSAFF2	POSAFF3	NEGAFF1
N1A											
N2A											
N3A											
AGG1											
AGG2											
AGG3											
CON1											
CON2											
CON3											
IMP1											
IMP2											
IMP3	1.0000										
ALT1	-.0663	1.0000									
ALT2	.0667	.4277	1.0000								
ALT3	.0887	.4452	.4390	1.0000							
DUT1	.0533	.1991	.3400	.2824	1.0000						
DUT2	-.0569	.1162	.1655	.1143	.3325	1.0000					
DUT3	.2487	.0994	.2364	.1745	.2941	.2907	1.0000				
POSAFF1	.0252	.1724	.2905	.1985	.2915	.1682	.2998	1.0000			
POSAFF2	.0199	.1348	.2618	.1624	.1824	.1454	.2352	.6957	1.0000		
POSAFF3	-.0343	.0726	.2194	.1243	.1707	.1543	.1983	.6955	.6734	1.0000	
NEGAFF1	.0766	-.1441	-.0520	-.1844	-.1808	-.1525	-.1404	-.2125	-.0927	-.2127	1.0000
NEGAFF2	.1379	-.1531	-.1655	-.1937	-.1680	-.1250	-.0984	-.3095	-.2526	-.3440	.6472
NEGAFF3	.1057	-.1647	-.1169	-.1572	-.2400	-.1656	-.1939	-.2462	-.2127	-.2506	.6921
JDI1	-.0719	.0582	.0965	.1482	.0800	.0524	.1044	.3814	.3307	.2975	-.2304
JDI2	-.0317	.1088	.1781	.1768	.1081	.0487	.1085	.4062	.3834	.3275	-.2156
JDI3	-.0823	.1220	.1231	.1386	.0885	.0657	.0862	.3873	.3280	.3367	-.2398
WW1	.1247	-.1507	-.1181	-.1828	-.1410	-.1850	-.1898	-.2705	-.2283	-.2575	.2234
WW2	.1330	-.2208	-.1967	-.2037	-.2610	-.3089	-.3308	-.2780	-.2132	-.2258	.1564
WW3	.1391	-.2776	-.1841	-.2094	-.2006	-.3059	-.3061	-.1686	-.1390	-.1463	.1289
OCB1	.0704	.1636	.2171	.1348	.1689	.0170	.0401	.2004	.2020	.1521	.0569
OCB2	.0144	.1629	.2303	.1447	.2345	.1332	.1295	.2891	.3084	.2839	.0029
OCB3	.0577	.0939	.1645	.0626	.1084	.0362	.0966	.0788	.1520	.1009	.0948

Appendix I Continued.

	NEGAFF2	NEGAFF3	JDI1	JDI2	JDI3	WW1	WW2	WW3	OCB1	OCB2	OCB3
N1A											
N2A											
N3A											
AGG1											
AGG2											
AGG3											
CON1											
CON2											
CON3											
IMP1											
IMP2											
IMP3											
ALT1											
ALT2											
ALT3											
DUT1											
DUT2											
DUT3											
POSAFF1											
POSAFF2											
POSAFF3											
NEGAFF1											
NEGAFF2	1.0000										
NEGAFF3	.6182	1.0000									
JDI1	-.3178	-.1901	1.0000								
JDI2	-.3464	-.1859	.8817	1.0000							
JDI3	-.3540	-.1865	.8602	.8795	1.0000						
WW1	.3374	.1840	-.3685	-.3243	-.3293	1.0000					
WW2	.2333	.1337	-.2373	-.2404	-.2374	.5970	1.0000				
WW3	.1747	.1713	-.1055	-.1320	-.1025	.4946	.7066	1.0000			
OCB1	.0612	.0383	.0162	.0727	.0426	.2259	.1098	.0796	1.0000		
OCB2	-.0605	-.0802	.1257	.1774	.1719	.1625	-.1046	-.0160	.6146	1.0000	
OCB3	.1081	.0685	-.0986	-.0243	-.0790	.3390	.0609	.1188	.6926	.5559	1.0000

APPENDIX J

Covariance Matrix Used In Personality Factor Modeling Procedures

	WW1	WW2	WW3	OCB1	OCB2	OCB3
WW1	32.85					
WW2	20.13	34.61				
WW3	16.91	24.80	35.59			
OCB1	7.79	3.89	2.86	36.20		
OCB2	6.64	-4.39	-0.68	26.36	50.83	
OCB3	9.19	1.70	3.35	19.71	18.75	22.38
N1A	5.19	4.89	3.83	-0.84	-3.07	-0.09
N2A	5.64	6.00	4.17	-1.04	-4.05	0.27
N3A	2.73	3.22	1.86	-1.16	-3.33	-0.50
AGG1	-1.44	-2.33	-2.14	1.59	2.39	0.78
AGG2	-3.59	-3.43	-2.75	-0.87	0.74	-1.23
AGG3	-2.38	-3.92	-3.98	1.39	2.35	0.50
CON1	-3.09	-4.14	-5.10	1.51	3.19	1.14
CON2	-2.65	-4.16	-4.04	2.46	3.89	1.50
CON3	-3.28	-4.25	-4.63	1.34	1.94	0.72
POSAFF1	-4.37	-4.61	-2.83	3.40	5.80	1.05
POSAFF2	-2.87	-2.75	-1.82	2.66	4.82	1.58
POSAFF3	-3.16	-2.85	-1.87	1.96	4.34	1.02
NEGAFF1	3.32	2.38	1.99	0.89	0.05	1.16
NEGAFF2	3.48	2.47	1.88	0.66	-0.78	0.92
NEGAFF3	2.10	1.57	2.03	0.46	-1.14	0.65
JDI1	-25.24	-16.69	-7.52	1.16	10.71	-5.58
JDI2	-22.30	-16.97	-9.45	5.25	15.17	-1.38
JDI3	-24.27	-17.96	-7.86	3.30	15.76	-4.80

Covariance Matrix Continued

	N1A	N2A	N3A	AGG1	AGG2	AGG3
N1A	7.57					
N2A	4.09	7.29				
N3A	3.96	3.82	6.89			
AGG1	-1.09	-1.21	-0.48	2.72		
AGG2	-2.15	-2.05	-0.86	1.45	6.17	
AGG3	-1.71	-1.77	-0.99	1.50	2.94	4.85
CON1	-1.57	-1.67	-1.10	0.79	0.49	1.30
CON2	-1.70	-1.68	-1.28	0.73	0.20	0.83
CON3	-2.28	-1.85	-1.28	0.99	0.51	1.26
POSAFF1	-2.24	-2.93	-1.58	1.11	1.57	1.12
POSAFF2	-1.22	-1.51	-0.96	0.70	0.29	0.47
POSAFF3	-1.85	-2.02	-1.33	0.53	0.53	0.74
NEGAFF1	2.94	2.23	2.96	-0.70	-1.75	-1.31
NEGAFF2	2.20	1.77	1.57	-0.91	-1.34	-1.08
NEGAFF3	2.16	1.99	2.11	-0.69	-1.07	-0.89
JDI1	-10.60	-9.30	-7.11	3.40	9.13	3.88
JDI2	-11.12	-10.19	-6.36	4.74	9.56	4.92
JDI3	-11.29	-10.77	-7.21	4.57	10.95	6.10

	CON1	CON2	CON3	POSAFF1	POSAFF2	POSAFF3
CON1	4.30					
CON2	2.10	4.01				
CON3	2.48	2.52	4.56			
POSAFF1	1.14	1.98	1.59	7.93		
POSAFF2	1.05	1.59	1.11	4.29	4.81	
POSAFF3	1.22	1.29	1.15	4.20	3.16	4.59
NEGAFF1	-0.86	-0.80	-1.36	-1.55	-0.53	-1.18
NEGAFF2	-0.88	-0.51	-1.14	-1.57	-1.00	-1.33
NEGAFF3	-1.09	-0.82	-1.37	-1.38	-0.93	-1.07
JDI1	-1.10	2.28	1.74	12.84	8.66	7.62
JDI2	0.38	2.80	2.38	13.72	10.08	8.42
JDI3	0.28	2.88	2.64	14.02	9.25	9.28

Covariance Matrix Continued

	NEGAFF1	NEGAFF2	NEGAFF3	JDI1	JDI2	JDI3
NEGAFF1	6.71					
NEGAFF2	3.02	3.25				
NEGAFF3	3.57	2.22	3.96			
JDI1	-7.14	-6.85	-4.52	142.89		
JDI2	-6.70	-7.49	-4.44	126.44	143.94	
JDI3	-7.99	-8.21	-4.77	132.24	135.70	165.40

APPENDIX K

Covariance Matrix Used In Personality Facet Modeling Procedures

	WW1	WW2	WW3	OCB1	OCB2	OCB3
WW1	32.85					
WW2	20.13	34.61				
WW3	16.91	24.80	35.59			
OCB1	7.79	3.89	2.86	36.20		
OCB2	6.64	-4.39	-0.68	26.36	50.83	
OCB3	9.19	1.70	3.35	19.71	18.75	22.38
IMP1	1.11	1.37	1.15	-0.43	-1.03	0.03
IMP2	2.29	3.18	2.27	-1.26	-2.27	-0.28
IMP3	1.14	1.24	1.32	0.67	0.16	0.43
ALT1	-1.35	-2.03	-2.59	1.54	1.82	0.70
ALT2	-0.93	-1.59	-1.51	1.80	2.26	1.07
ALT3	-1.16	-1.33	-1.39	0.90	1.14	0.33
DUT1	-1.24	-2.35	-1.83	1.55	2.56	0.79
DUT2	-1.75	-3.00	-3.01	0.17	1.57	0.28
DUT3	-1.63	-2.92	-2.74	0.36	1.39	0.69
POSAFF1	-4.37	-4.61	-2.83	3.40	5.80	1.05
POSAFF2	-2.87	-2.75	-1.82	2.66	4.82	1.58
POSAFF3	-3.16	-2.85	-1.87	1.96	4.34	1.02
NEGAFF1	3.32	2.38	1.99	0.89	0.05	1.16
NEGAFF2	3.48	2.47	1.88	0.66	-0.78	0.92
NEGAFF3	2.10	1.57	2.03	0.46	-1.14	0.65
JDI1	-25.24	-16.69	-7.52	1.16	10.71	-5.58
JDI2	-22.30	-16.97	-9.45	5.25	15.17	-1.38
JDI3	-24.27	-17.96	-7.86	3.30	15.76	-4.80

Covariance Matrix Continued

	IMP1	IMP2	IMP3	ALT1	ALT2	ALT3
IMP1	2.26					
IMP2	1.44	3.48				
IMP3	0.84	1.12	2.53			
ALT1	-0.21	-0.22	-0.17	2.45		
ALT2	-0.09	-0.12	0.15	0.92	1.89	
ALT3	-0.06	-0.13	0.16	0.77	0.67	1.23
DUT1	-0.31	-0.60	0.13	0.48	0.72	0.48
DUT2	-0.16	-0.53	-0.15	0.30	0.38	0.21
DUT3	-0.22	-0.35	0.59	0.23	0.49	0.29
POSAFF1	-2.24	-2.93	-1.58	1.11	1.57	1.12
POSAFF2	-1.22	-1.51	-0.96	0.70	0.29	0.47
POSAFF3	-1.85	-2.02	-1.33	0.53	0.53	0.74
NEGAFF1	2.94	2.23	2.96	-0.70	-1.75	-1.31
NEGAFF2	2.20	1.77	1.57	-0.91	-1.34	-1.08
NEGAFF3	2.16	1.99	2.11	-0.69	-1.07	-0.89
JDI1	-10.60	-9.30	-7.11	3.40	9.13	3.88
JDI2	-11.12	-10.19	-6.36	4.74	9.56	4.92
JDI3	-11.29	-10.77	-7.21	4.57	10.95	6.10

	DUT1	DUT2	DUT3	POSAFF1	POSAFF2	POSAFF3
DUT1	2.34					
DUT2	0.84	2.72				
DUT3	0.68	0.72	2.25			
POSAFF1	1.26	0.78	1.27	7.93		
POSAFF2	0.61	0.53	0.77	4.29	4.81	
POSAFF3	0.56	0.55	0.64	4.20	3.16	4.59
NEGAFF1	-0.72	-0.65	-0.55	-1.55	-0.53	-1.18
NEGAFF2	-0.46	-0.37	-0.27	-1.57	-1.00	-1.33
NEGAFF3	-0.73	-0.54	-0.58	-1.38	-0.93	-1.07
JDI1	1.46	1.03	1.87	12.84	8.66	7.62
JDI2	1.99	0.96	1.96	13.72	10.08	8.42
JDI3	1.74	1.39	1.67	14.02	9.25	9.28

Covariance Matrix Continued

	NEGAFF1	NEGAFF2	NEGAFF3	JDI1	JDI2	JDI3
NEGAFF1	6.71					
NEGAFF2	3.02	3.25				
NEGAFF3	3.57	2.22	3.96			
JDI1	-7.14	-6.85	-4.52	142.89		
JDI2	-6.70	-7.49	-4.44	126.44	143.94	
JDI3	-7.99	-8.21	-4.77	132.24	135.70	165.40

REFERENCES CITED

Aamondt, M. G. (1996). Applied Industrial/Organizational Psychology. (2nd ed.). New York: Brooks/Cole Publishing.

Abrahams, N. M., Neumann, I., & Githens, W. H. (1971). Faking vocational interests: Simulated versus real life motivation. Personnel Psychology, 24, 5-12.

Adorno, T. W., Frenkel-Brunswik, E., Levinson, D. J., & Sandford, N. (1950). The Authoritarian Personality. New York: Harper & Row.

Ajzen, I. (1988). Attitudes, Personality, and Behavior. Chicago: Dorsey Press.

Ajzen, I. (1991). The theory of planned behavior. Organizational Behavior and Human decision Processes, 50, 179-211.

Ajzen, I. & Fishbein, M. (1977). Attitude-behavior relations: A theoretical analysis and review of empirical research. Psychological Bulletin, 84(5), 888-918.

Allport, G. W. & Odbert, H. S. (1933). Trait-names: A psycho-lexical study. Psychological Monographs, 47, 171-220 (1, Whole No. 211).

Anderson, J. C. & Gerbing, D. W. (1988). Structural equation modeling in practice: A review and recommended two-step approach. Psychological Bulletin, 103(3), 411-423.

Arvey, R. D., Bouchard, T. J., Jr., Segal, N. L., & Abraham, L. M. (1989). Job satisfaction: Environmental and genetic components. Journal of Applied Psychology, 74, 187-192.

Atkinson, J. W. & Birch, D. (1970). The Dynamics of Action. New York: Wiley.

Barrick, M. R. & Mount, M. K. (1991). The big five personality dimensions and job performance: A meta-analysis. Personnel Psychology, 44, 1-26.

Barrick, M. R. & Mount, M. K. (1993). Autonomy as a moderator of the relationships between the big five personality dimensions and job performance. Journal of Applied Psychology, 78, 111-118.

Bateman, T. S. & Organ, D. W. (1983). Job satisfaction and the good soldier: The relationship between affect and employee citizenship. Academy of Management Journal, 26(4), 587-595.

Baumgarten, F. (1933). Die Charaktereigenshaften. Beiträge zur Charakter und Persönlichkeitsforshung: Monogr. I. Bern: A. Francke.

Bentler, P. M. & Chou, C. (1987). Practical issues in structural modeling. Sociological Methods and Research, 16, 78-117.

Bernardin, H. J. (1977). The relationship of personality variables to organizational withdrawal. Personnel Psychology, 30, 17-27.

Bernardin, H. J. & Bownas, D. A. (Eds.). (1985). Personality Assessment in Organizations.

Block, J. (1993). A contrarian view of the five-factor approach to personality description. Unpublished manuscript, University of California, Department of Psychology, Berkeley.

Borgatta, E. F. (1964). The structure of personality characteristics. Behavioral Science, 9, 8-17.

Borman, W. C., & Motowidlo, S. J. (1993). Expanding the criterion space to include elements of contextual performance. In N. Schmitt & W. C. Borman (Eds.), Personnel Selection (pp. 71-98). San Francisco, CA: Jossey-Bass.

Brayfield, A. H., & Crockett, W. H. (1955). Employee attitudes and employee performance. Psychological Bulletin, 52, 396-424.

Brief, A. P., Burke, M. J., George, J. M., Robinson, B. S., & Webster, J. (1988). Should negative affectivity remain an unmeasured variable in the study of job stress? Journal of Applied Psychology, 73(2), 193-198.

Brief, A. P. & Motowidlo, S. J. (1986). Prosocial organizational behaviors. Academy of Management Review, 11(4), 710-725.

Brief, A. P. & Roberson, L. (1989). Job attitude organization: An exploratory study. Journal of Applied Social Psychology, 19, 717-727.

Cattell, R. B. (1943). The description of personality: Basic traits resolved into clusters. Journal of Abnormal Social Psychology, 38, 476-506.

Cattell, R. B. (1945). The description of personality: Principles and findings in a factor analysis. American Journal of Psychology, 58, 69-90.

Cattell, R. B. (1946). The Description and Measurement of Personality. Yonkers, NY: World Book.

Cattell, R. B. (1947). Confirmation and clarification of primary personality factors. Psychometrika, 12, 197-220.

Cattell, R. B. (1948). The primary personality factors in women compared with those in men. British Journal of Psychology, 1, 114-130.

Cattell, R. B. (1965). The Scientific Analysis of Personality. London: Penguin.

Cattel, R. B., Eber, H. & Tatsuoka, M. (1970). Handbook for the 16PF Questionnaire. Champaign: IPAT.

Clark, L. A. & Watson, D. (1991). General affective dispositions in physical and psychological health. In C. R. Snyder & D. R. Forsyth (Eds.), Handbook of Social and Clinical Psychology (pp. 221-245). New York: Pergamon Press.

Corey, S. M. (1937). Professed attitudes and actual behavior. Journal of Educational Psychology, 28, 271-280.

Costa, P. T., Jr. & McCrae, R. R. (1992). Revised NEO Personality Inventory and NEO Five-Factor Inventory Professional Manual. Odessa, FL: PAR.

Costa, P. T., Jr., McCrae, R. R., & Dye, D. A. (1991). Facet scales for Agreeableness and Conscientiousness: A revision of the NEO Personality Inventory. Personality and Individual Differences, 12, 887-898.

Cranny, C. J., Smith, P. C., & Stone, E. F. (1992). Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books.

Cudeck, R. (1989). The analysis of correlation matrices using covariance structure models. Psychological Bulletin, 105, 317-327.

Davidson, A. & Jaccard, J. (1976). Determinants of fertility intentions. In S. Newman & V. Thompson (Eds.), Population psychology: Research and Eduacational Issues. Washington, DC: U.S. Government Printing Office.

Davidson, A. & Jaccard, J. (1979). Variables that moderate the attitude-behavior relation: Results of a longitudinal survey. Journal of Personality and Social Psychology, 37(8), 1364-1376.

Decker, P. J. & Borgen, F. H. (1993). Dimensions of work appraisal: Stress, strain, coping, job satisfaction, and negative affectivity. Journal of Counseling Psychology, 40(4), 470-478.

Digman, J. M. (1990). Personality structure: Emergence of the five-factor model. Annual Review of Psychology, 41, 417-440.

Dipboye, R. L., Smith, C. S., & Howell, W. C. (1994). Understanding Industrial and Organizational Psychology: An Integrated Approach. Fort Worth, TX: Harcourt Brace.

Doob, L. W. (1947). The behavior of attitudes. Psychological Bulletin, 54, 135-156.

Eysenck, H. J. (1970). The Structure of Human Personality (3rd ed.). London: Methuen.

Eysenck, H. J. & Eysenck, S. J. (1964). The Manual for the Eysenck Personality Inventory. San Diego: Educational and Industrial Testing Service.

Ferris, G. R., Youngblood, S. A., & Yates, V. L. (1985). Personality, training performance, and withdrawal: A test of the person-group fit hypothesis for organizational newcomers. Journal of Vocational Behavior, 27, 377-388.

Fishbein, M. & Ajzen, I. (1974). Attitudes toward objects as predictors of single and multiple behavioral criteria. Psychological Review, 81, 59-74.

Fishbein, M. & Ajzen, I. (1975). Belief, Attitude, Intention, and Behavior: An Introduction to Theory and Research. Reading, MA: Addison-Wesley.

Fishbein, M. & Ajzen, I. (1981). Attitudes and voting behavior: An application of the theory of reasoned action. In G. M. Stephenson & J. M. Davis (Eds.). Progress in Applied Social Psychology (Vol. 1, pp. 253-313). London: Wiley.

Fisher, C. D. & Locke, E. A. (1992). The new look in job satisfaction research and theory. In C. J. Cranny, P. C. Smith, and E. F. Stone (Eds.), Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books.

Fiske, D. W. (1949). Consistency of the factorial structures of personality ratings from differenct sources. Journal of Abnormal Social Psychology, 44, 329-344.

Furnham, A. (1992). Personality at Work: The Role of Individual Differences in the Workplace. New York: Routledge.

Furnham, A. & Zacherl, M. (1986). Personality and job satisfaction. Personality and Individual Differences, 7, 453-459.

George, J. M. (1989). Mood and absence. Journal of Applied Psychology, 74, 317-324.

George, J. M. (1990). Personality, affect and behavior in groups. Journal of Applied Psychology, 75, 107-116.

George, J. M. (1991). State or trait: Effects of positive mood on prosocial behaviors at work. Journal of Applied Psychology, 76, 299-307.

George, J. M. (1992). The role of personality in organizational life: Issues and evidence. Journal of Management, 18(2), 185-213.

George, J. M. & Bettenhausen, K. (1990). Understanding prosocial behavior, sales performance, and turnover: A group level analysis in a service context. Journal of Applied Psychology, 75, 698-709.

Gergen, K J., Gergen, M. M., & Meter, K. (1972). Individual orientations to prosocial behavior. Journal of Social Issues, 28(3), 105-130.

Gerhart, B. (1987). How important are dispositional factors as determinants of job satisfaction? Implication for job design and other personnel programs. Journal of Applied Psychology, 72(3), 366-373.

Getman, J. G., Goldberg, S. B., & Herman, J. B. (1976). Union Representation Elections: Law and Reality. New York: Russell Sage.

Ghiselli, E. & Barthol, R. (1953). The validity of personality inventions in the selection of employees. Journal of Applied Psychology, 37, 18-20.

Guilford, J. P. (1975). Factors and factors of personality. Psychological Bulletin, 82, 802-814.

Guion, R. M. (1991). Personnel assessment, selection, and placement. . In M. D. Dunnette & L. A. Hough (Eds.), Handbook of Industrial and Organizational Psychology, Vol II, (pp.325-397).

Guion, R. M. (1991). Agenda for research and action. In C. J. Cranny, P. C. Smith, and E. F. Stone (Eds.), Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books.

Guion, R. M. & Gottier, R. F. (1965). Validity of personality measures in personnel selection. Personnel Psychology, 18, 135-164.

Hackett, R. D. (1989). Work attitudes and employee absenteeism: A synthesis of the literature. Journal of Occupational Psychology, 62(3), 235-248.

Hackman, J. R. & Oldham, G. R. (1976). Motivation through the design of work: A test of a theory. Organizational Behavior and Human Performance, 16, 250-279.

Hakel, M. D. (1974). Normative personality factors recovered from ratings of personality descriptors: The beholder's eye. Personnel Psychology, 27, 409-421.

Hanisch, K. A. (1995a). Behavioral families and multiple causes: Matching the complexity of responses to the complexity of antecedents. Current Directions in Psychological Science, 5, 156-162.

Hanisch, K. A., (1995b). Organizational withdrawal. In N. Nicholson, R. Schuler, & A. Van de Ven (Eds.), The Dictionary of Organizational Behavior. Oxford, England: Blackwell Publishers.

Hanisch, K. A. & Hulin, C. L. (1990). Job attitudes and organizational withdrawal: An examination of retirement and other voluntary withdrawal behaviors. Journal of Vocational Behavior, 37, 60-78.

Hanisch, K. A. & Hulin, C. L. (1991). General attitudes and organizational withdrawal: An evaluations of a causal model. Journal of Vocational Behavior, 39, 110-128.

Hanisch, K.A., Hulin, C.L., & Roznowski, M. (In Press). Evaluating individuals' repertoires of behaviors: Scientific reasons and evidence for studying multiple behaviors. Journal of Organizational Behavior.

Hathaway, S. R. & McKinley, J. C. (1943). Manual for the Minnesota Multiphasic Personality Inventory. New York: Psychological Corporation.

Hogan, R. T. (1991). Personality and personality measurement. In M. D. Dunnette & L. A. Hough (Eds.), Handbook of Industrial and Organizational Psychology, Vol II. (pp.873-919).

Hough, L. M., Eaton, N. K., Dunnette, M. D., Kamp, J. D., & McCloy, R. A. (1990). Criterion-related validities of personality constructs and the effect of response distortion on those validities. Journal of Applied Psychology, 75(5), 581-595.

Hulin, C. L. (1991). Adaptation, persistence, and commitment in organizations. In M. D. Dunnette & L. A. Hough (Eds.), Handbook of Industrial and Organizational Psychology, Vol II, (pp.445-505).

Hulin, C. L. & Mayer, L. J. (1986). Psychometric equivalence of a translation of the Job Descriptive Index into Hebrew. Journal of Applied Psychology, 71(1) pp. 83-94.

Hulin C. L. & Rousseau, D. M. (1980). Analyzing infrequent events: Once you find them your troubles begin. In K. H. Roberts & Burstein (Eds.), Issues in aggregation: New directions for methodology of social and behavioral science, 6. San Francisco: Jossey-Bass

Hulin, C. L., Roznowski, M. & Hachiya, D. (1985). Alternative opportunities and withdrawal decisions: Empirical and theoretical discrepancies and an integration. Psychological Bulletin, 97, 233-250.

Hunter, J. E. (1986). Cognitive ability, cognitive aptitudes, job knowledge, and job performance. Journal of Vocational Behavior, 29, 340-362.

Iaffaldano, M. T. & Muchinsky, P. M. (1985). Job satisfaction and job performance: A meta-analysis. Psychological Bulletin, 97, 251-273.

Jackson, D. N. (1984). Personality Research Form Manual. (3rd ed.). Port Huron, MI: Research Psychologists Press.

Jenkins, J. M. (1993). Self-monitoring and turnover: The impact of personality on intent leave. Journal of Organizational Behavior, 14(1), 83-91.

Joreskog, K. G. & Sorbom, D. (1989). LISREL 7: A Guide to the Program and Applications. Chicago: Statistical Package for the Social Sciences.

Joreskog, K. G. & Sorbom, D. (1993). LISREL 8 User's Reference Guide. Chicago: Scientific Software International, Inc.

Judge, T. A. (1993). Does affective disposition moderate the relationship between job satisfaction and voluntary turnover? Journal of Applied Psychology, 78(3) pp. 395-401.

Judge, T. A. & Hulin, C. L. (1993). Job satisfaction as reflection of disposition: A Multiple source causal analysis. Organizational Behavior and Human Decision Processes, 56, 388-421.

Katzell, R. A. (1994). Contemporary meta-trends in industrial and organizational psychology. In M. D. Dunnette & L. A. Hough (Eds.), Handbook of Industrial and Organizational Psychology, Vol IV, (pp.1-94).

Katzell, R. A., Thompson, D. E., & Guzzo, R. A. (1992). How job satisfaction and job performance are and are not linked. In C. J. Cranny, P. C. Smith, and E. F. Stone (Eds.), Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books.

Kemery, E. R. (1991). Affective disposition, role stress, and job withdrawal. Journal of Social Behavior and Personality, 6(7), 331-347.

Klages, L. (1926). The Science of Character. (Trasl. 1932). London: Allen & Unwin.

Krebs, D. L. (1970). Altruism: An examination of the concept and review of the literature. Psychological Bulletin, 73, 258-302.

Kunin, T. (1955). The construction of a new type of attitude measure. Personnel Psychology, 8, 65-78.

LaPiere, R. (1934). Attitudes versus actions. Social Forces, 13, 230-237.

Levin I. & Stokes, J. P. (1989). Dispositional approach to job satisfaction: Role of negative affectivity. Journal of Applied Psychology, 74(5) pp. 752-758.

Locke, E. A. (1976). The nature and causes of job satisfaction. In M. D. Dunnette (Ed.), Handbook of Industrial and Organizational Psychology (pp.1297-1343). Chicago: Rand McNally.

Lubinski, D. & Thompson, T. (1986). Functional units of human behavior: A dispositional analysis. In T. Thompson & M. Zeiler (Eds.), Analysis and Integration of Behavioral Units (pp. 315-334). Hillsdale, NJ: Erlbaum.

March, J. G. & Simon, H. A. (1958). Organizations. New York: Wiley.

McClelland, D., Atkinson, J., Clark, R., & Lowell, E. (1953). The Achievement Motive. New York: Appleton-Century-Crofts.

McHenry, J. J., Hough, L. M., Toquam, J. L., Hanson, M. A., & Aschworth, S. A. (1990). Project A validation results: The relationship between predictor and criterion domains. Personnel Psychology, 43, 335-353.

Mobley, W. H., Horner, S. O., & Hollingsworth, A. T. (1978). An evaluation of precursors of hospital employee turnover. Journal of Applied Psychology, 63, 408-414.

Motowidlo, S. J., (1984). Does job satisfaction lead to consideration and personal sensitivity? Academy of Management Journal, 27, 910-915.

Mowday, R. T. & Spencer, D. G. (1981). The influence of task and personality characteristics on employee turnover and absenteeism incidents. Academy of Management Journal, 24(3), 634-642.

Murray, H. A. (1938). Explorations in Personality. New York: Oxford University Press.

Newton, T. & Keenan, T. (1991). Further analyses of the dispositional argument in organizational behavior. Journal of Applied Psychology, 76(6), 781-787.

Norman, W. T. (1963). Toward an adequate taxonomy of personality attributes: Replicated factor structure in peer nomination personality ratings. Abnormal Social Psychology, 66, 574-583.

Organ, D. W. (1988). Organizational Citizenship Behavor: The Good Soldier Syndrom. Lexington, MA: Lexington Books.

Organ, D. W. (1994). Personality and organizational citizenship behavior. Journal of Management, 20(2), 465-478.

Organ, D. W. & Konovsky, M. A. (1989). Cognitive versus affective determinants of organizational citizenship behavior. Journal of Applied Psychology, 74(1), 157-164.

Organ, D. W. & Lingl, A. (1995). Personality, satisfaction, and organizational citizenship behaivor. The Journal of Social Psychology, 135(3), 339-350.

Orpen, C. (1971). The fakability of the Edwards Personal Preference Schedule in personnel selection. Personnel Psychoogy, 24, 1-4.

Parsons, C. K. & Hulin, C. L. (1982). An empirical comparison of item response theory and hierarchical factor analysis in applications to the measurement of job satisfaction. Journal of Applied Psychology, 67, 826-834.

Pedhazur, E. J. & Schmelkin, L. P. (1991). Measurement, Design, and Analysis: An Integrated Approach. Hillsdale, NJ: Lawrence Erlbaum.

Petty, R. E. & Cocioppo, J. T. (1981). Attitudes and Persuasion: Classic and Contemporary Approaches. Dubuque, IA: William C. Brown.

Podsakoff, P. M. & Williams, L. (1986). The relationship between job performance and job satisfaction. In E. A. Locke (Ed.), Generalizing From Laboratory to Field Settings (pp. 207-253). Lexington, MA: Lexington Books.

Podsakoff, P. M., MacKenzie, S. B., Moorman, R. H., & Fetter, R. (1990). Transformational leader behaviors and their effects on followers' trust in leader, satisfaction, and organizational citizenship behavior. Leadership Quarterly, 1, 107-142.

Puffer, S. M. (1987). Prosocial behavior, non-compliant behavior, and work performance among commission salespeople. Journal of Applied Psychology, 72, 615-621.

Price, J. L. (1977). The Study of Turnover. Ames, Iowa: Iowa State University Press.

Rosse, J. G. & Miller, H. E. (1984). Relationship between absenteeism and other employee behaviors. In P. S. Goodman & R.S. Atkin (Eds.), Absenteeism: New Approaches to Understanding, Measuring, and Managing Emplovee Absence. San Francisco: Jossey-Bass.

Rosse, J. G. Miller, H. E., & Barnes, L. K. (1991). Combining personality and cognitive ability predictors for hiring service-oriented employees. Journal of Business and Psychology, 5(4), 431-445.

Roznowski, M. (1989). Examination of the measurement properties of the job descriptive index with experimental items. Journal of Applied Psychology, 74(5), 805-814.

Roznowski, M. & Hanisch, K. A. (1990). Building systematic heterogeneity into attitude and behavior measures. Journal of Vocational Behavior, 36, 361-375.

Roznowski, M. & Hulin, C. L. (1992). The scientific merit of valid measures of general constructs with special reference to job satisfaction and job withdrawal. In C. J. Cranny, P. C. Smith, and E. F. Stone (Eds.), Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books.

Roznowski, M., Rosse, J. G., & Miller, H. E. (1992). The Utility of Broad-Band Measures of Employee Behavior: The Case for Employee Adaptation and Citizenship. Paper presented at the 52nd annual meeting of the Academy of Management, Las Vegas.

Rushton, J. P., Brainerd, C. J., & Pressley, M. (1983). Behavioral development and construct validity: The principle of aggregation. Psychological Bulletin, 94(1), 18-38.

Salancik, G. R. & Pfeffer, J.(1977). An examination of need-satisfaction models of job attitudes. Administrative Science Quarterly, 22, 427-456.

Salancik, G. R. & Pfeffer, J. (1978). A social information processing approach to job attitudes and task design. Administrative Science Quarterly, 23, 224-251.

Schmidt, F. L. & Hunter, J. E. (1981). Employment testing: Old theories and new research findings. American Psychologist, 36, 1128-1137.

Schneider, B. & Dachler, H. P. (1978). A note on the stability of the job description index. Journal of Applied Psychology, 63, 650-653.

Schneider, R. J. & Hough, L. M. (1995). Personality and industrial/organizational psychology. In C. L. cooper and L. T. Robertson (Eds.), International Review of Industrial and Organizational Psychology, (Vol. 10). New York: John Wiley & Sons Ltd.

Schriesheim, C. (1978). Job satisfaction, attitudes toward unions, and voting in a union representation election. Journal of Applied Psychology, 63, 548-552.

Schumacker, R. E. & Lomax, R. G. (1996). A Beginner's Guide to Structural Equation Modeling. Mahwah, NJ: Lawrence Erlbaum.

Scott, K. D. & Taylor, G. S. (1985). An examination of conflicting findings on the relationship between job satisfaction and absenteeism: A meta-analysis. Academy of Management Journal, 28, 599-612.

Smith, C. A., Organ, D. W., & Near, J. P. (1983). Organizational citizenship behavior: Its nature and antecedents. Journal of Applied Psychology, 68(4), 653-663.

Smith, G. M. (1967). Usefulness of peer ratings of personality in educational research. Educational Psychology Measurement, 27, 967-984.

Smith, P. C. (1992). In pursuit of happiness: Why study general job satisfaction? In C. J. Cranny, P. C. Smith, and E. F. Stone (Eds.), Job Satisfaction: How People Feel About Their Jobs and How It Affects Their Performance. New York: Lexington Books

Smith, P.C., Balzer, W., Brannick, M., Eggleston, S., Gibson, W., Ironson, G., Josephson, H., Paul, K., Reilly, C., & Whalen, M. (1987). Manual for the revised JDI and Job in General scales. Bowling Green, OH: Department of Psychology, Bowling Green State University.

Smith, P. C., Kendall, L., & Hulin C. L. (1969). The Measurement of Satisfaction in Work and Retirement. Chicago: Rand McNally.

Staw, B. M. & Ross, J. (1985). Stability in the midst of change: A dispositional approach to job attitudes. Journal of Applied Psychology, 70(3), 391-407.

Staw, B. M., Bell, N. E., & Clausen, J. A. (1986). The dispositional approach to job attitudes: A lifetime longitudinal test. Administrative Science Quarterly, 31, 56-77.

Steers, R. M. & Rhodes, S. R. (1978). Major influences on employee attendance: A process model. Journal of Applied Psychology, 63, 391-407.

Tellegen, A. (1985). Structures of mood and personality and their relevance to assessing anxiety, with an emphasis on self-report.

Tett, R. P. & Meyer, J. P. (1993). Job satisfaction, organizational commitment, turnover intention, and turnover: Path analyses based on meta-analytic findings. Personnel Psychology, 46, 259-293.

Tett, R. P., Jackson, D. N., & Rothstein, M. (1991). Personality measures as predictors of job performance: A meta-analytic review. Personnel Psychology, 44, 703-742.

Thibaut, J. W. & Kelley, H. H. (1959). The Social Psychology of Groups. New York: Wiley.

Thurstone, L. L. (1931). The measurement of social attitudes. Journal of Abnormal and Social Psychology, 26, 249-269.

Triandis, H. C. (1971). Attitudes and Attitude Change. New York: Wiley.

Tupes, E. C. (1957). Personality traits related to effectiveness of junior and senior Air Force officers (USAF Personnel Training Resource Center Resource Rep. No. 57-125)

Tupes, E. C. & Christal, R. E. (1961). Recurrent personality factors based on trait ratings (USAF Technical Rep. No. 61-97).

Underwood, B. & Moore, B. (1982). Perspective-taking and altruism. Psychological Bulletin, 91, 143-173.

Vroom, V. (1964). Work and Motivation. New York: Wiley.

Waller, N. G. & Ben-Porath, Y. S. (1987). Is it time for clinical psychology to embrace the Five-Factor Model of personality? American Psychologist, 42, 887-889.

Watson, D. & Clark, L. A. (1984). Cross-cultural convergence in the structure of mood: A Japanese replication and a comparison with U. S. findings. Journal of Personality and Social Psychology, 47, 127-144

Watson, D., Clark, L. A. & Tellegen, A. (1988). Development and validation of brief measures of positive and negative affect: The Panas scales. Journal of Personality and Social Psychology. 54, 1063-1070.

Weigel, R. H., Vernon, D. T., & Tognacci, L. N. (1974). Specificity of the attitude as a determinant of attitude-behavior congruence. Journal of Personality and Social Psychology, 30, 724-728.

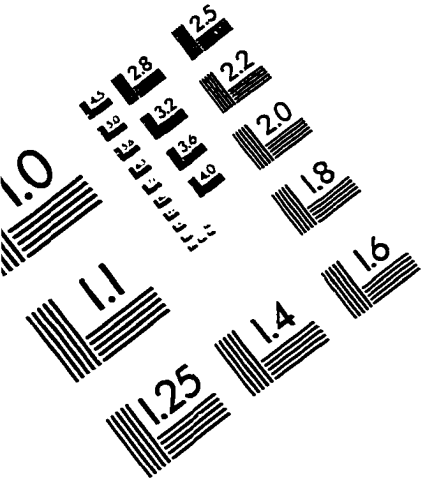
Weiss, D. J. & Adler, S. (1984). Personality and organizational behavior. In B. M. Staw & L. L. Cummings (Eds.). Research in Organizational Behavior. Vol. 6, (pp. 1-50). New York: JAI Press.

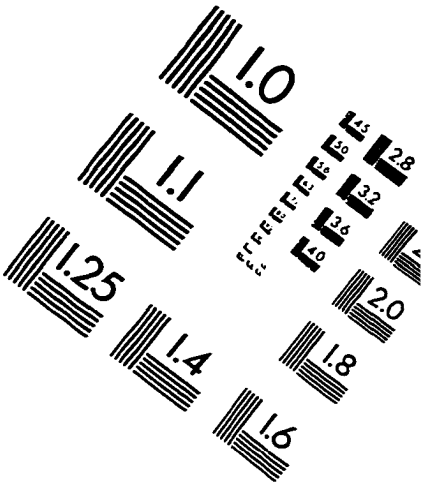
Weiss, D. J., Dawis, R. B., England, G. W., & Lofquist, L. H. (1967). Manual for the Minnesota Satisfaction Questionnaire. Minneapolis: Industrial Relations Center, University of Minnesota.

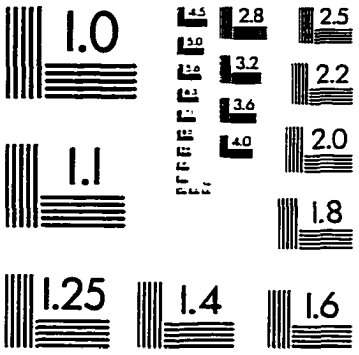
Wicker, A. W. (1969). Attitudes versus actions: The relationship of verbal and overt behavioral responses to attitude objects. Journal of Social Issues, 25, 41-78.

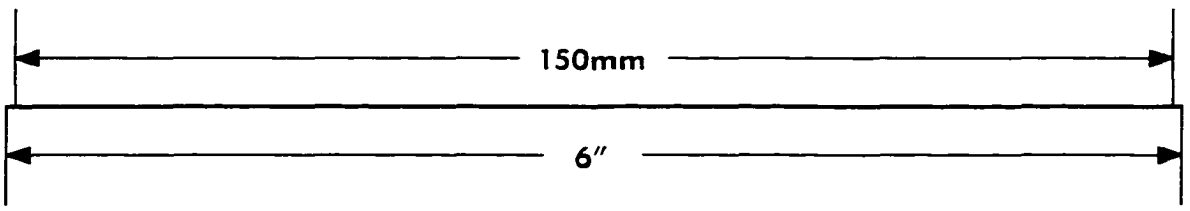
Wicker, A. W. (1971). An examination of the "other-variables" explanation of attitude-behavior inconsistency. Journal of Personality and Social Psychology, 19, 18-30.

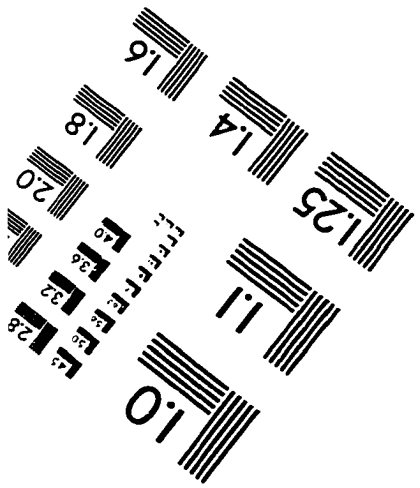
IMAGE EVALUATION
TEST TARGET (QA-3)

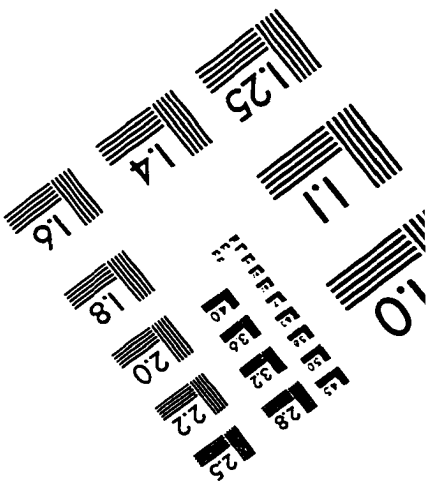












APPLIED IMAGE, Inc
1653 East Main Street
Rochester, NY 14609 USA
Phone: 716/482-0300
Fax: 716/288-5989